



Amended Results Report

Order ID: 0105452

NEFCO
97 East Howard Street
Quincy, MA 02169

Project: NEFCO Monthly
97 East Howard Street
Quincy, MA 02169

Attn: Jordan Dimitrov

Regulatory ID:

Sample Number: 0105452-01
Collector: JGD

Site: Class A EQ Biosolids
Collect Date: 10/29/2020 4:00 pm

Sample ID:
Sample Type: Composite

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
Inorganics									
Chloride	0.148	% dry	EPA 300.0	0.00523	1	11/02/20	EJJ	11/03/20 6:53	EJJ
Corrosivity (pH)									
Corrosivity, pH (pH Units)	6.49	N/A	SW 846 9045D		1	11/02/20	YTM	11/02/20 10:32	YTM
Corrosivity, Temperature (C)	19.5	N/A	SW 846 9045D		1	11/02/20	YTM	11/02/20 10:32	YTM
Nitrate as N	< 10.5	mg/kg dry	EPA 300.0	10.5	1	11/02/20	EJJ	11/03/20 6:53	EJJ
Total Kjeldahl Nitrogen (TKN)	4.44	% dry	EPA 351.2	0.690	100	11/11/20	ZJH	11/13/20 16:05	DWL
Total Organic Nitrogen (TON) As Received	3.91	%	Calculation		1	11/17/20	YTM	11/17/20 10:46	YTM
Total Solids	95.3	%	SM 2540-G		1	11/03/20	YTM	11/03/20 14:52	YTM
Volatile Solids	55.4	%	SM 2540-G		1	11/03/20	YTM	11/04/20 11:08	YTM
Metals									
Sulfur	2.2	%	SW846 6010C	0.00061	2	11/10/20		11/11/20 10:04	SUB*
Aluminum	6530	mg/kg dry	SW 846 6010D	13.1	1	11/06/20	RJS	11/10/20 14:16	RJS
Arsenic	5.34	mg/kg dry	SW 846 6010D	0.656	1	11/06/20	RJS	11/10/20 14:16	RJS
Cadmium	2.10	mg/kg dry	SW 846 6010D	0.131	1	11/06/20	RJS	11/10/20 14:16	RJS
Calcium	15100	mg/kg dry	SW 846 6010D	131	1	11/06/20	RJS	11/10/20 14:16	RJS
Chromium	48.4	mg/kg dry	SW 846 6010D	2.62	1	11/06/20	RJS	11/10/20 14:16	RJS
Cobalt	2.37 J	mg/kg dry	SW 846 6010D	1.31	1	11/06/20	RJS	11/10/20 14:16	RJS
Copper	559 B1	mg/kg dry	SW 846 6010D	0.131	1	11/06/20	RJS	11/10/20 14:16	RJS
Iron	44100	mg/kg dry	SW 846 6010D	131	10	11/06/20	RJS	11/12/20 14:12	RJS
Lead	113	mg/kg dry	SW 846 6010D	0.656	1	11/06/20	RJS	11/10/20 14:16	RJS
Magnesium	5940	mg/kg dry	SW 846 6010D	131	1	11/06/20	RJS	11/10/20 14:16	RJS
Manganese	357	mg/kg dry	SW 846 6010D	0.656	1	11/06/20	RJS	11/10/20 14:16	RJS
Mercury	0.920	mg/kg dry	SW 846 7471B	0.0219	1	11/02/20	MKR	11/02/20 14:41	RPV
Molybdenum	40.5	mg/kg dry	SW 846 6010D	2.62	1	11/06/20	RJS	11/10/20 14:16	RJS
Nickel	22.5	mg/kg dry	SW 846 6010D	2.62	1	11/06/20	RJS	11/10/20 14:16	RJS
Potassium	0.113	% dry	SW 846 6010D	0.0131	1	11/06/20	RJS	11/10/20 14:16	RJS
Selenium	7.66 J	mg/kg dry	SW 846 6010D	0.656	1	11/06/20	RJS	11/10/20 14:16	RJS
Sodium	1560	mg/kg dry	SW 846 6010D	131	1	11/06/20	RJS	11/10/20 14:16	RJS
Zinc	1340	mg/kg dry	SW 846 6010D	26.2	1	11/06/20	RJS	11/10/20 14:16	RJS

Pesticide/PCB

Report Generated On: 11/20/2020 2:54 pm
STL_Results Revision #1.9

0105452
Effective: 04/16/2020



SUBURBAN TESTING LABS

Sample Number: 0105452-01	Site: Class A EQ Biosolids	Sample ID:
Collector: JGD	Collect Date: 10/29/2020 4:00 pm	Sample Type: Composite

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Pesticide/PCB (Continued)

PCBs, 8082

Aroclor 1016	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1221	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1232	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1242	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1248	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1254	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1260	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1262	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
Aroclor 1268	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK
PCBS, Total	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	11/02/20	TBH	11/02/20 21:36	CEK

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Tetrachloro-m-xylene	74.1 V3	µg/Kg dry	SW846 3550C/8082A	141%	10	35-135	11/02/20 21:36
Surrogate: Decachlorobiphenyl	58.2	µg/Kg dry	SW846 3550C/8082A	111%	10	10-153	11/02/20 21:36

Wet Chemistry

Ammonia-nitrogen, Total	0.53	%	S4500NH3D-11	0.003	10	11/09/20	11/10/20 23:10	SUB*
Phosphorus, Total	2.5	%	EPA 365.1	0.052	100	11/09/20	11/11/20 11:13	SUB*

Data Qualifiers:

B1 The target analyte was detected in the Method, Dilution Water, Instrument or Extraction Blank at or above the method Reporting Limit, however it was <10% the concentration detected in the sample. Data may be fully usable under the 2009 TNI Standard.

J The analyte was detected above the method detection limit but below the method reporting limit; the reported result is an estimated value.

V3 The surrogate associated with this sample was above established acceptance criteria. Data may be biased high.

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

Work Order Memo

SUB: SW846 6010C, S4500NH3D-11, EPA 365.1 performed by LAB ID# 22-293 & PA010

** This report has been Amended (Rev1) and replaces all previous reports for this order ID **

Report Generated On: 11/20/2020 2:54 pm 0105452
STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of STL.

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Charles Wanyo
Project Manager I

Report Generated On: 11/20/2020 2:54 pm 0105452
STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

610-



0105452

Charles Wanyo

 AT(Check One): ☒ Standard ☐ 24hr ☐ 48hr ☐ 72hr ☐ Other _____
 (Additional charges may apply for rush TAT. If not specified, standard TAT will apply)

Order ID: _____

Client Name: New England Fertilizer Company (NEAddress: 97 East Howard St.Quincy, MA 02169Contact Name: Jordan DimitrovPhone: 617-376-2500, x.107Fax: 617-984-0953Email: jdimitrov@nefcobiosolids.com

Monthly Composite

Address: same as clientPayment / P.O. Info: PO: 03071

Comments:

SWTL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
							Matrix	Sample Type	Bottle Type	Preservative	
	Class A EQ Biosolids	10-02-20	01:00	JGD	See attached	1	Solid	Comp	G	O	Need NJ & PA DEP certified
		10-29-20	16:00								

Relinquished By: <u>Jordan Dimitrov</u>	Date: <u>29-Oct-2020</u> Time: <u>16:40</u>		Sample Conditions		Matrix Key		Bottle Type Key		Reporting Options	
Received By:	Date: _____ Time: _____	Temp °C: _____ Acceptable: Y / N	Submitted with COC? <u>Y</u> / N	Number of containers match number on COC? <u>Y</u> / N	NPW = Non-Potable Water Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg) PW = Potable Water (not for SDWA compliance) SDWA = Safe Drinking Water Act Potable Sample		P = Plastic G = Glass O = Other		<input type="checkbox"/> SDWA Reporting PWSID: _____	
Relinquished By:	Date: _____ Time: _____	Temp °C: _____ Acceptable: Y / N	All containers in tact? <u>Y</u> / N	Tests within holding times <u>Y</u> / N	Sample Type Key G = Grab 8HC = 8 Hr. Composite 24HC = 24 Hr. Composite		Preservative Key N = Sodium Thiosulfate A = Ascorbic Acid H = HNO ₃ C = HCl S = H ₂ SO ₄ OH = NaOH O = Other NA = None Required		<input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Other _____	
Received in Lab By: <u>GAH</u> <u>(1)</u>	Date: <u>10/30/20</u> Time: <u>952</u>	Temp °C: <u>5.6</u> Acceptable: <u>Y</u> / N	40 mL VOA vials free of headspace? <u>Y</u> / N						<input type="checkbox"/> Return a copy of this form with Report	

Signing this form indicates your agreement with SWTL's Standard Terms and Conditions unless otherwise specified in writing. SLF059 Rev. 1.4 Effective November 12, 2014
 Shaded areas are for SWTL use only.



0105452
Charles Wanyo

This is a monthly composi

at NEFCO

Plant, Quincy, MA.

Below are the parameters we need tested for:

Parameter	Abbr	Units
Total Solids	TS	%
Volatile Solids	VS	%
pH Units	pH	
Total Kj. Nitrogen	TKN	%
Ammon. Nitrogen	NH ₃ -N	%
Nitrate Nitrogen	NO ₃ -N	mg/Kg
Organic Nitrogen	Org-N	%
Total Phosphorus	P	%
Potassium	K	%
Chloride	Cl	%
Total Sulfur	S	%
Calcium	Ca	mg/Kg
Iron	Fe	mg/Kg
Aluminum	Al	mg/Kg
Arsenic	As	mg/Kg
Cadmium	Cd	mg/Kg
Chromium	Cr	mg/Kg
Cobalt	Co	mg/Kg
Copper	Cu	mg/Kg
Lead	Pb	mg/Kg
Magnesium	Mg	mg/Kg
Manganese	Mn	mg/Kg
Mercury	Hg	mg/Kg
Molybdenum	Mo	mg/Kg
Nickel	Ni	mg/Kg
Selenium	Se	mg/Kg
Sodium	Na	mg/Kg
Zinc	Zn	mg/Kg
PCBs	PCB	ug/Kg

- Please use Solid Materials Matrix for the testing. I checked the "Solid" matrix for the sample.
- Please, test Total Solids via SM 2540-G, making sure you are certified Lab by NJ DEP and PA DEP for this method.
- Please test Total Phosphorus for solid matrix.
- Please, report the data on a dry weight basis
- Please, make sure the detection limit for Selenium is 0.5 mg/Kg or less

Jordan Dimitrov, NEFCO Environmental Compliance and Lab Mgr

Oct 29, 2020; (617) 376-2500, ext.107, jdimitrov@necobiosolids.com, Mon-Fri, 9:30 AM – 5:30 PM



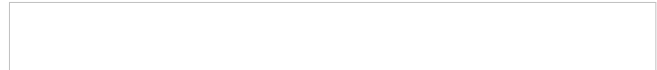
CERTIFICATE OF ANALYSIS

Jordan Dimitrov
NEFCO
97 East Howard Street
Quincy, MA 01148

RE: Biosolids (N/A)
ESS Laboratory Work Order Number: 20J1045

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director



Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

Subcontracted Analyses

BAL Laboratory - Cranston, RI

Fecal Coliform



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids

ESS Laboratory Work Order: 20J1045

SAMPLE RECEIPT

The following samples were received on October 29, 2020 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
20J1045-01	EQ Class A Biosolids	Solid	%S, 9221E



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids

ESS Laboratory Work Order: 20J1045

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids

ESS Laboratory Work Order: 20J1045

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH
MADEP 18-2.1 - VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids
Client Sample ID: EQ Class A Biosolids
Date Sampled: 10/29/20 11:55
Percent Solids: 95

ESS Laboratory Work Order: 20J1045
ESS Laboratory Sample ID: 20J1045-01
Sample Matrix: Solid

Microbiology

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>
Fecal Coliform	< 2 (N/A)		9221E		ARG	10/30/20 15:00	MPN/g dry
Percent Solids	95 (N/A)		%S		ARG	10/30/20 15:00	%



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids

ESS Laboratory Work Order: 20J1045

Notes and Definitions

<	Less than the Method Detection Limit.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit
MF	Membrane Filtration
MPN	Most Probably Number
TNTC	Too numerous to Count
CFU	Colony Forming Units



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids

ESS Laboratory Work Order: 20J1045

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

910-2211
486

CHAIN OF CUSTODY

Page 07

ESS LAB PROJECT ID

20J104E

Division of Thielsch Engineering, Inc.
35 Frances Avenue, Cranston, RI 02910-2211
Tel: (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

Turn Time X Standard Other
If faster than 5 days, prior approval by laboratory is required #
State where samples were collected from:
MA RI CT NH NJ NY ME Other
Is this project for any of the following:
MA-MCP* Navy USACE Other

Reporting Limits

Electronic Deliverable

X	Yes	No
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Format pdf

[illegible]

Container Type:	P-Poly	G-Glass	S-Sterile	V-VOA	Matrix:	S-Soil	SD-Solid	D-Sludge	WW-Waste Water	GW-Ground Water	SW-Surface Water	DW-Drinking Water	O-Oil	W-Wipes	F-Filters
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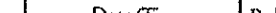




Cooler Present ☐ Yes ☐ No Internal Use Only

Seals Intact Yes No NA: [] Pickup

Cooler Temp: 06 [] Technicians

Comments:

This is a sample of EQ Biosolids, collected by Jordan Dimitrov from Train 3 at NEFCO Plant, Quincy, MA.

Relinquished by: (Signature) Jordan Duntov	Date/Time 10/29/17 17:29	Received by: (Signature) 	Date/Time 10/29/17 17:29	Relinquished by: (Signature) 	Date/Time 10/29/17 17:29	Received by: (Signature) Amber Harkin	Date/Time 10/29/17 17:29
Relinquished by: (Signature) 	Date/Time 10/30/17 13:43	Received by: (Signature) 	Date/Time 10/30/17 13:44	Relinquished by: (Signature) 	Date/Time 10/30/17 13:44	Received by: (Signature) 	Date/Time 10/30/17 13:44

www.esslaboratory.com

Page _____ of _____

Turn Time <u> X </u> Standard Other _____ If faster than 5 days, prior approval by laboratory is required # _____	Reporting Limits	ESS LAB PROJECT ID 20J1045
State where samples were collected from: <u>MA</u> RI CT NH NJ NY ME Other _____	Electronic Deliverable	
Is this project for any of the following: MA-MCP* Navy USACE Other _____	<u> X </u> Yes ___ No	Format <u>pdf</u>

Co. Name NEFCO			Project #		Project Name (20 Char. or less) Biosolids Fecal Coli			Number of Containers		Type of Containers		Circle and/or Write Required Analysis											
Contact Person Jordan Dimitrov			Address 97 East Howard St.			8260 624 524.2 8021 MTBE/BTEX GRO VPH 8100 TPH DRO EPH No Targets 8081 8082 PCB Pesticides 8270 625 PAH only RCRA5 RCRA8 PP13 TAL23 TCLP8 MCP MCPw/Hg NBC7 SM 9221E																	
City Quincy		State MA		Zip 02169								PO#											
Telephone # 617 376 2500 x-107		Fax #		Email Address jdimitrov@nefcobiosolids.com																			
ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)			1	G													
1	10-29-2020	11:55		x	SD	EQ Class A Biosolids					x												
Container Type: P-Poly G-Glass S-Sterile V-VOA						Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters																	
Cooler Present <input type="checkbox"/> Yes <input type="checkbox"/> No						Internal Use Only						Comments: This is a sample of EQ Biosolids, collected by Jordan Dimitrov from Train 3 at NEFCO Plant, Quincy, MA.											
Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No NA: _____						[] Pickup																	
Cooler Temp: 06						[] Technicians _____																	
Relinquished by: (Signature) Jordan Dimitrov		Date/Time 10/29/2020		Received by: (Signature) 		Date/Time 10/29/14:39		Relinquished by: (Signature) 		Date/Time 10/29/17:29		Received by: (Signature) Amber Garcia		Date/Time 10/29/17:29									
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time									



Results Report

Order ID: 0121882

NEFCO
97 East Howard Street
Quincy, MA 02169

Project: NEFCO Monthly
97 East Howard Street
Quincy, MA 02169

Attn: Jordan Dimitrov

Regulatory ID:

Sample Number: 0121882-01

Site: Class A EQ Biosolids

Sample ID:

Collector: JGD

Collect Date: 12/03/2020 4:00 pm

Sample Type: Composite

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
-------------------------------	--------	-------	--------	------	----	-----------	----	---------------	----

Inorganics

Chloride	0.181	% dry	EPA 300.0	0.00523	1	12/16/20	EJJ	12/18/20 0:14	EJJ
<i>Corrosivity (pH)</i>									
Corrosivity, pH (pH Units)	6.62	N/A	SW 846 9045D		1	12/10/20	YTM	12/10/20 8:38	YTM
Corrosivity, Temperature (C)	20.6	N/A	SW 846 9045D		1	12/10/20	YTM	12/10/20 8:38	YTM
Nitrate as N	< 10.5	mg/kg dry	EPA 300.0	10.5	1	12/16/20	EJJ	12/18/20 0:14	EJJ
Total Kjeldahl Nitrogen (TKN)	4.48	% dry	EPA 351.2	0.328	50	12/08/20	ZJH	12/09/20 14:36	DWL
Total Organic Nitrogen (TON) As Received	3.95	%	Calculation		1	01/05/21	DWL	01/05/21 16:13	DWL
Total Solids	95.3	%	SM 2540-G		1	12/08/20	CH	12/08/20 14:10	CH
Volatile Solids	56.4	%	SM 2540-G		1	12/08/20	CH	12/09/20 9:55	CH

Metals

Sulfur	2.5		%	SW846 6010C	0.0017	5	01/06/21		01/07/21 10:15	SUB*
Aluminum	6160	M3	mg/kg dry	SW 846 6010D	25.6	2	12/14/20	RJS	12/15/20 11:48	RJS
Arsenic	5.75		mg/kg dry	SW 846 6010D	1.28	2	12/14/20	RJS	12/15/20 11:48	RJS
Cadmium	1.88		mg/kg dry	SW 846 6010D	0.256	2	12/14/20	RJS	12/15/20 11:48	RJS
Calcium	13900		mg/kg dry	SW 846 6010D	256	2	12/14/20	RJS	12/15/20 11:48	RJS
Chromium	42.7		mg/kg dry	SW 846 6010D	5.12	2	12/14/20	RJS	12/15/20 11:48	RJS
Cobalt	2.57	J	mg/kg dry	SW 846 6010D	2.56	2	12/14/20	RJS	12/15/20 11:48	RJS
Copper	505	B1	mg/kg dry	SW 846 6010D	0.256	2	12/14/20	RJS	12/15/20 11:48	RJS
Iron	39800	M3	mg/kg dry	SW 846 6010D	25.6	2	12/14/20	RJS	12/15/20 11:48	RJS
Lead	102		mg/kg dry	SW 846 6010D	1.28	2	12/14/20	RJS	12/15/20 11:48	RJS
Magnesium	4720		mg/kg dry	SW 846 6010D	256	2	12/14/20	RJS	12/15/20 11:48	RJS
Manganese	305		mg/kg dry	SW 846 6010D	1.28	2	12/14/20	RJS	12/15/20 11:48	RJS
Mercury	1.06		mg/kg dry	SW 846 7471B	0.0219	1	12/10/20	MKR	12/10/20 10:07	MKR
Molybdenum	33.5		mg/kg dry	SW 846 6010D	5.12	2	12/14/20	RJS	12/15/20 11:48	RJS
Nickel	21.5		mg/kg dry	SW 846 6010D	5.12	2	12/14/20	RJS	12/15/20 11:48	RJS
Potassium	0.132		% dry	SW 846 6010D	0.0256	2	12/14/20	RJS	12/15/20 11:48	RJS
Selenium	2.75	J	mg/kg dry	SW 846 6010D	1.28	2	12/14/20	RJS	12/15/20 11:48	RJS
Sodium	1600		mg/kg dry	SW 846 6010D	256	2	12/14/20	RJS	12/15/20 11:48	RJS
Zinc	1160		mg/kg dry	SW 846 6010D	51.2	2	12/14/20	RJS	12/15/20 11:48	RJS

Pesticide/PCB

Report Generated On: 01/08/2021 3:01 pm

0121882

STL_Results Revision #1.9

Effective: 04/16/2020





SUBURBAN TESTING LABS

Sample Number: 0121882-01
Collector: JGD

Site: Class A EQ Biosolids
Collect Date: 12/03/2020 4:00 pm

Sample ID:
Sample Type: Composite

Department / Test / Parameter	Result	Units	Method	R.L.	DF	Prep Date	By	Analysis Date	By
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Pesticide/PCB (Continued)

PCBs, 8082

Aroclor 1016 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1221 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1232 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1242 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1248 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1254 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1260 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1262 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
Aroclor 1268 [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK
PCBS, Total [2C]	< 526	µg/Kg dry	SW846 3550C/8082A	526	10	12/11/20	SCD	12/16/20 3:00	CEK

Surrogate Recoveries	Results	Units	Method	%Recovery	DF	Limits (%Recovery)	Analysis Date
Surrogate: Tetrachloro-m-xylene [2C]	29.4	µg/Kg dry	SW846 3550C/8082A	56%	10	35-135	12/16/20 3:00
Surrogate: Decachlorobiphenyl [2C]	31.6 C6	µg/Kg dry	SW846 3550C/8082A	60%	10	10-153	12/16/20 3:00

Wet Chemistry

Ammonia-nitrogen, Total	0.53	%	S4500NH3D-11	0.002	10	12/10/20	12/28/20 19:27	SUB*
Phosphorus, Total	2.6	%	EPA 365.1	0.057	100	12/11/20	12/15/20 13:46	SUB*

Data Qualifiers:

B1	The target analyte was detected in the Method, Dilution Water, Instrument or Extraction Blank at or above the method Reporting Limit, however it was <10% the concentration detected in the sample. Data may be fully usable under the 2009 TNI Standard.
C6	The surrogate recovery of the CCV was below acceptance criteria.
J	The analyte was detected above the method detection limit but below the method reporting limit; the reported result is an estimated value.
M3	The Matrix Spike associated with this sample is above established acceptance criteria, indicating potential matrix interference. Results of this sample may be biased high.

Sample Receipt Conditions:

All samples met the sample receipt requirements for the relevant analyses.

Work Order Memo

SUB: S4500NH3D-11, EPA 365.1 performed by LAB ID# 22-293 & PA010

SUB: SW846 6010C performed by LAB ID# 22-293

Report Generated On: 01/08/2021 3:01 pm 0121882
STL_Results Revision #1.9 Effective: 04/16/2020

SUBURBAN TESTING LABS

1037F MacArthur Road, Reading, PA 19605 Phone: 610-375-TEST Fax: 610-375-4090 suburbantestinglabs.com



PA DEP # 06-00208
NJ DEP # PA081



SUBURBAN TESTING LABS

The test *pH, Lab* is performed in the Laboratory as soon as possible. These results are not appropriate for compliance with NPDES, SDWA, or other regulatory programs that require analysis within 15 minutes of sample collection and should be considered for informational purposes only.

**pH, Final* for ASTM leachate is performed by method SM 4500-H-B.

All results meet the requirements of STL's TNI (NELAC) Accredited Quality System unless otherwise noted. If your results contain any data qualifiers or comments, you should evaluate useability relative to your needs.

If collectors initials include "STL", samples have been collected in accordance with STL SOP SL0015.

All results reported on an As Received (Wet Weight) basis unless otherwise noted.

This laboratory report may not be reproduced, except in full, without the written approval of STL.

Results are considered Preliminary unless report is signed by authorized representative of STL.

Reviewed and Released By:

Charles Wanyo
Project Manager I

Report Generated On: 01/08/2021 3:01 pm 0121882
STL_Results Revision #1.9 Effective: 04/16/2020





SUBURBAN TESTING LABS

610-375-

0121882
Charles Wanyo

Check One: ☒ Standard ☐ 24hr ☐ 48hr ☐ 72hr ☐ Other
 Additional charges may apply for rush TAT. If not specified, standard TAT will apply.

Order ID: _____

Client Name: New England Fertilizer Company (NEFC)Address: 97 East Howard St.Quincy, MA 02169Contact Name: Jordan DimitrovPhone: 617-376-2500, x.107Fax: 617-984-0953Email: jdimitrov@nefcobiosolids.comAddress: same as clientPayment / P.O. Info: PO: 03071

Monthly Composite

Comments:

(1) 16oz g

SWTL Sample Number	Sample Description / Site ID:	Date Sampled	Time Sampled	Samplers Initials	Test(s) Requested:	Bottle Quantity	See Codes Below				Comments / Field Data:
							Matrix	Sample Type	Bottle Type	Preservative	
	Class A EQ Biosolids	10-30-20	01:00	JGD	See attached	1	Solid	Comp	G	O	Need NJ & PA DEP certified
		12-03-20	16:00								

Relinquished By: <u>[Signature]</u>	Date: <u>12-03-20</u> Time: <u>16:20</u>		Sample Conditions		Matrix Key		Bottle Type Key		Reporting Options	
Received By:	Date: _____ Time: _____	Temp °C: _____ Acceptable: Y / N	Submitted with COC? <u>Y</u> / N		NPW = Non-Potable Water		P = Plastic		<input type="checkbox"/> SDWA Reporting	
Relinquished By:	Date: _____ Time: _____	Temp °C: _____ Acceptable: Y / N	Number of containers match number on COC? <u>Y</u> / N		Solid = Raw Sludge, Dewatered sludge, soil, etc. (reported as mg/kg)		G = Glass		PWSID: _____	
Received in Lab By: <u>[Signature]</u>	Date: <u>12/4/20</u> Time: <u>1030</u>	Temp °C: <u>3.7</u> Acceptable: <u>Y</u> / N	All containers in tact? <u>Y</u> / N		PW = Potable Water (not for SDWA compliance)		O = Other		<input type="checkbox"/> Fax	
			Tests within holding times <u>Y</u> / N		SDWA = Safe Drinking Water Act Potable Sample				<input checked="" type="checkbox"/> Email	
			40 mL VOA vials free of headspace? <u>Y</u> / N		Sample Type Key	SDWA Sample Types	Preservative Key		<input type="checkbox"/> Other _____	
					G = Grab	D=Distribution	N = Sodium		<input type="checkbox"/> Return a copy of this form with Report	
					8HC = 8 Hr. Composite	E=Entry Point	Thiosulfate			
					24HC = 24 Hr. Composite	R=Raw	A = Ascorbic Acid			
						C=Check	H = HNO ₃			
						S=Special	C = HCl			
						M=Maximum Residence	S = H ₂ SO ₄			
							OH = NaOH			
							O = Other			
							NA = None Required			

Signing this form indicates your agreement with SWTL's Standard Terms and Conditions unless otherwise specified in writing. SLF059 Rev. 1.4 Effective November 12, 2014
 Shaded areas are for SWTL use only.



0121882
Charles Wanyo

This is a monthly composite sample of Class A EQ Biosolids, fertilizer grade, collected at NEFCO Plant, Quincy, MA.

Below are the parameters we need tested for:

Parameter	Abbr	Units
✓ Total Solids	TS	%
✓ Volatile Solids	VS	%
✓ pH Units	pH	
✓ Total Kj. Nitrogen	TKN	%
✓ Ammon. Nitrogen	NH ₃ -N	%
✓ Nitrate Nitrogen	NO ₃ -N	mg/Kg
✓ Organic Nitrogen	Org-N	%
✓ Total Phosphorus	P	%
✓ Potassium	K	%
✓ Chloride	Cl	%
✓ Total Sulfur	S	%
✓ Calcium	Ca	mg/Kg
✓ Iron	Fe	mg/Kg
✓ Aluminum	Al	mg/Kg
✓ Arsenic	As	mg/Kg
✓ Cadmium	Cd	mg/Kg
✓ Chromium	Cr	mg/Kg
✓ Cobalt	Co	mg/Kg
✓ Copper	Cu	mg/Kg
✓ Lead	Pb	mg/Kg
✓ Magnesium	Mg	mg/Kg
✓ Manganese	Mn	mg/Kg
✓ Mercury	Hg	mg/Kg
✓ Molybdenum	Mo	mg/Kg
✓ Nickel	Ni	mg/Kg
✓ Selenium	Se	mg/Kg
✓ Sodium	Na	mg/Kg
✓ Zinc	Zn	mg/Kg
✓ PCBs	PCB	ug/Kg

- Please use Solid Materials Matrix for the testing. I checked the "Solid" matrix for the sample.
- Please, test Total Solids via SM 2540-G, making sure you are certified Lab by NJ DEP and PA DEP for this method.
- Please test Total Phosphorus for solid matrix.
- Please, report the data on a dry weight basis
- Please, make sure the detection limit for Selenium is 0.5 mg/Kg or less

Jordan Dimitrov, NEFCO Environmental Compliance and Lab Mgr

Dec 3, 2020; (617) 376-2500, ext.107, jdimitrov@nefcobiosolids.com, Mon-Fri, 9:30 AM – 5:30 PM



CERTIFICATE OF ANALYSIS

Jordan Dimitrov
NEFCO
97 East Howard Street
Quincy, MA 01148

RE: Biosolids Fecal Coli (N/A)
ESS Laboratory Work Order Number: 20K0789

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 12:48 pm, Dec 14, 2020

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

Subcontracted Analyses

BAL Laboratory - Cranston, RI

Fecal Coliform



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20K0789

SAMPLE RECEIPT

The following samples were received on November 24, 2020 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
20K0789-01	EQ Class A Biosolids	Solid	%S, 2540G, 9221E



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20K0789

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20K0789

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH
MADEP 18-2.1 - VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids Fecal Coli
Client Sample ID: EQ Class A Biosolids
Date Sampled: 11/24/20 11:55
Percent Solids: 95

ESS Laboratory Work Order: 20K0789
ESS Laboratory Sample ID: 20K0789-01
Sample Matrix: Solid

Classical Chemistry

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
Percent Solid	95 (N/A)		2540G		1	JMG	11/24/20 19:46	%	DK02419



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids Fecal Coli
Client Sample ID: EQ Class A Biosolids
Date Sampled: 11/24/20 11:55
Percent Solids: 95

ESS Laboratory Work Order: 20K0789
ESS Laboratory Sample ID: 20K0789-01
Sample Matrix: Solid

Microbiology

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>
Fecal Coliform	< 2 (N/A)		9221E		ARG	11/30/20 11:35	MPN/g dry
Percent Solids	95 (N/A)		%S		ESS	11/30/20 11:35	%



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20K0789

Notes and Definitions

<	Less than the Method Detection Limit.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit
MF	Membrane Filtration
MPN	Most Probably Number
TNTC	Too numerous to Count
CFU	Colony Forming Units



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20K0789

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

BAL

www.esslaboratory.com

Page _____ of _____

DO11273

Turn Time <u> X </u> Standard <u> </u> Other <u> </u> If faster than 5 days, prior approval by laboratory is required # <u> </u>	Reporting Limits	ESS LAB PROJECT ID <u>20K0789</u>
State where samples were collected from: <u>MA</u> RI CT NH NJ NY ME Other <u> </u>	Electronic Deliverable <u> X </u> Yes <u> </u> No	Format <u>pdf</u>
Is this project for any of the following: MA-MCP* <u> </u> Navy <u> </u> USACE <u> </u> Other <u> </u>		

Container Type: P-Poly	G-Glass	S-Sterile	V-VOA	Matrix: S-Soil	SD-Solid	D-Sludge	WW-Waste Water	GW-Ground Water	SW-Surface Water	DW-Drinking Water	O-Oil	W-Wipes	F-Filters
------------------------	---------	-----------	-------	----------------	----------	----------	----------------	-----------------	------------------	-------------------	-------	---------	-----------

Cooler Present	___ Yes ___ No	Internal Use Only	Comments: This is a sample of EQ Biosolids, collected by Jordan Dimitrov from Train 2 at NEFCO Plant, Quincy, MA.
Seals Intact	___ Yes ___ No NA: _____	[] Pickup	
Cooler Temp: <u>11</u>		[] Technicians _____	

Relinquished by: (Signature) <i>John D. Lee</i>	Date/Time 11-24-20 12:30	Received by: (Signature) <i>[Signature]</i>	Date/Time 11/24/20 12:30	Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 11/24/20 16:36	Received by: (Signature) <i>Amber Hines</i>	Date/Time 11/24/20 16:36
Relinquished by: (Signature) <i>Taylor Davis</i>	Date/Time 11/30/20 11:00	Received by: (Signature) <i>[Signature]</i>	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

Page _____ of _____

Turn Time <input checked="" type="checkbox"/> Standard Other _____ If faster than 5 days, prior approval by laboratory is required # _____	Reporting Limits	ESS LAB PROJECT ID 20K0789
State where samples were collected from: MA RI CT NH NJ NY ME Other _____	Electronic Deliverable <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Format pdf
Is this project for any of the following: MA-MCP* Navy USACE Other		

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt
Page 10 of 10

1/6/2021

NEFCO
Jordan Dimitrov
97 East Howard St
Quincy, MA, 02169

Ref: Analytical Testing
Report Number: 20-357-0006
Project Description: Class A EQ Biosolids

Dear Jordan Dimitrov:
Waypoint Analytical Virginia, Inc. received sample(s) on 12/22/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Sub-contracted testing is noted on the Sample Summary Table if applicable.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Pauric Mc Groary

Pauric McGroary
Agronomist

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

Sample Summary Table

Report Number: 20-357-0006
Client Project Description: Class A EQ Biosolids

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020		
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	AOAC 2.4.14	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	9045D	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	SM-2320 B	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	SM-2540G	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	SM-4500-NH3C	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	SM-4500-NH3C-TKN	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	4500NO3F-2011	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	6010D	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	SW-7471B	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	8081A	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	8082	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	8260B	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	8270D	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	AOAC 2.5.07	WP MTN -
74489	Class a EQ Biosolids	Solids	12/21/2020 14:00	12/22/2020	AOAC 993.31	WP MTN -

09570
NEFCO
Jordan Dimitrov
97 East Howard St
Quincy, MA 02169

Project Class A EQ Biosolids

Information :

Report Date : 01/06/2021
Received : 12/22/2020

Pauric Mc Groary

Report Number : **20-357-0006**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74489**

Matrix: **Solids**

Sample ID : **Class a EQ Biosolids**

Sampled: **12/21/2020 14:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	5.57	%	0.010	1	12/28/20 16:28	FMM	SM-2540G
Available Phosphorus as P2O5	8.67	% - dry	0.105	1	12/28/20 11:42	DXT	AOAC 993.31
Available Potassium (as K2O)	0.192	% - dry		1	12/29/20 15:07	DXT	AOAC 2.5.07
Water Insoluble Nitrogen	5.03	% - dry	0.021	1	01/06/21 10:00	JJ	AOAC 2.4.14
Water Soluble Nitrogen	5290	mg/Kg - dry	265	1	01/04/21 10:30		CALCULATION

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Alkalinity (as CaCO3)	4160	mg/Kg - dry	105	1	12/29/20 10:25	CXB	SM-2320 B
Ammonia Nitrogen	3230	mg/Kg - dry	26.5	1	01/04/21 15:00	JPJ	SM-4500-NH3C
Nitrate+Nitrite-N	6.90	mg/Kg - dry	5.11	1	01/04/21 14:54	ZBD	4500NO3F-2011
Organic N	52400	mg/Kg - dry	265	1	01/04/21 10:30		CALCULATION
pH	6.6	s.u.		1	01/05/21 15:06	CxC	9045D
Total Solids	94.4	%	0.010	1	12/28/20 16:28	FMM	SM-2540G
Total Volatile Solids	64.6	%	0.010	1	12/28/20 16:28	FMM	SM-2540G
Total Kjeldahl Nitrogen	55600	mg/Kg - dry	265	1	01/04/21 10:30	JPJ	SM-4500-NH3C-TKN
Phosphorus	21800	mg/Kg - dry	26.5	5	12/31/20 20:07	TJS	6010D
Aluminum	6590	mg/Kg - dry	5.29	1	12/31/20 20:02	TJS	6010D
Arsenic	6.81	mg/Kg - dry	0.529	1	12/30/20 19:41	JADS	6010D
Calcium	16900	mg/Kg - dry	265	5	12/31/20 20:07	TJS	6010D
Cadmium	2.49	mg/Kg - dry	0.106	1	12/30/20 19:41	JADS	6010D

Qualifiers/ Definitions

* Outside QC Limit
DF Dilution Factor
MQL Method Quantitation Limit

B Analyte detected in blank
L Limit Exceeded

09570
NEFCO
Jordan Dimitrov
97 East Howard St
Quincy, MA 02169

Project Class A EQ Biosolids

Information :

Report Date : 01/06/2021
Received : 12/22/2020

Pauric Mc Groary

Report Number : **20-357-0006**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74489**

Matrix: **Solids**

Sample ID : **Class a EQ Biosolids**

Sampled: **12/21/2020 14:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Chromium	50.2	mg/Kg - dry	0.264	1	12/30/20 19:41	JADS	6010D
Copper	507	mg/Kg - dry	0.529	1	12/31/20 20:02	TJS	6010D
Iron	44100	mg/Kg - dry	52.9	5	12/31/20 20:07	TJS	6010D
Lead	103	mg/Kg - dry	0.317	1	12/30/20 19:41	JADS	6010D
Magnesium	5150	mg/Kg - dry	5.29	1	12/30/20 19:41	JADS	6010D
Manganese	343	mg/Kg - dry	0.529	1	12/30/20 19:41	JADS	6010D
Mercury	1.46	mg/Kg - dry	0.0164	1	12/30/20 10:55	DDB	SW-7471B
Molybdenum	30.5	mg/Kg - dry	0.264	1	12/30/20 19:41	JADS	6010D
Nickel	23.8	mg/Kg - dry	0.264	1	12/30/20 19:41	JADS	6010D
Potassium	1370	mg/Kg - dry	52.9	5	12/31/20 20:07	TJS	6010D
Selenium	5.22	mg/Kg - dry	0.529	1	12/30/20 19:41	JADS	6010D
Sodium	1400	mg/Kg - dry	26.5	1	12/30/20 19:41	JADS	6010D
Zinc	1080	mg/Kg - dry	1.32	1	12/30/20 19:41	JADS	6010D
Sulfur	17500	mg/Kg - dry	52.9	5	12/31/20 20:07	TJS	6010D

Analytical Method: 8081A

Prep Batch(es): **L528732** 12/28/20 09:45

Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aldrin	<22.6	µg/Kg - dry	22.6	10	12/30/20 10:34	VIC	L529163
Chlordane	<226	µg/Kg - dry	226	10	12/30/20 10:34	VIC	L529163
4,4'-DDD	<22.6	µg/Kg - dry	22.6	10	12/30/20 10:34	VIC	L529163
4,4'-DDE	<22.6	µg/Kg - dry	22.6	10	12/30/20 10:34	VIC	L529163

Qualifiers/ Definitions

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	MQL	Method Quantitation Limit

09570
NEFCO
Jordan Dimitrov
97 East Howard St
Quincy, MA 02169

Project Class A EQ Biosolids

Information :

Report Date : 01/06/2021
Received : 12/22/2020

Paucic Mc Groary

Report Number : **20-357-0006**

REPORT OF ANALYSIS

Paucic Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74489**

Matrix: **Solids**

Sample ID : **Class a EQ Biosolids**

Sampled: **12/21/2020 14:00**

Analytical Method: 8081A **Prep Batch(es):** **L528732** 12/28/20 09:45

Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
4,4'-DDT	<22.6	µg/Kg - dry	22.6	10	12/30/20 10:34	VIC	L529163
Dieldrin	<22.6	µg/Kg - dry	22.6	10	12/30/20 10:34	VIC	L529163
gamma-BHC	141	µg/Kg - dry	22.6	10	12/30/20 10:34	VIC	L529163
Heptachlor	<22.6	µg/Kg - dry	22.6	10	12/30/20 10:34	VIC	L529163
Toxaphene	<2260	µg/Kg - dry	2260	10	12/30/20 10:34	VIC	L529163
Surrogate: Decachlorobiphenyl	59.6		Limits: 37-165%	10	12/30/20 10:34	VIC	L529163
Surrogate: Tetrachloro-m-xylene	76.1		Limits: 18-158%	10	12/30/20 10:34	VIC	L529163

Analytical Method: 8082 **Prep Batch(es):** **L529576** 01/04/21 11:16

Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<86.8	µg/Kg - dry	86.8	1	01/04/21 18:11	VIC	L529773
Aroclor 1221	<86.8	µg/Kg - dry	86.8	1	01/04/21 18:11	VIC	L529773
Aroclor 1232	<86.8	µg/Kg - dry	86.8	1	01/04/21 18:11	VIC	L529773
Aroclor 1242	<86.8	µg/Kg - dry	86.8	1	01/04/21 18:11	VIC	L529773
Aroclor 1248	<86.8	µg/Kg - dry	86.8	1	01/04/21 18:11	VIC	L529773
Aroclor 1254	<86.8	µg/Kg - dry	86.8	1	01/04/21 18:11	VIC	L529773
Aroclor 1260	<86.8	µg/Kg - dry	86.8	1	01/04/21 18:11	VIC	L529773
Surrogate: Decachlorobiphenyl	39.3		Limits: 25-125%	1	01/04/21 18:11	VIC	L529773
Surrogate: Tetrachloro-m-xylene	61.0		Limits: 25-125%	1	01/04/21 18:11	VIC	L529773

Qualifiers/ Definitions

*
DF

Outside QC Limit
Dilution Factor

B
MQL

Analyte detected in blank
Method Quantitation Limit

09570
NEFCO
Jordan Dimitrov
97 East Howard St
Quincy, MA 02169

Project Class A EQ Biosolids

Information :

Report Date : 01/06/2021
Received : 12/22/2020

Pauric Mc Groary

Report Number : **20-357-0006**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74489**

Matrix: **Solids**

Sample ID : **Class a EQ Biosolids**

Sampled: **12/21/2020 14:00**

Analytical Method: 8260B **Prep Batch(es):** **L529014** 12/29/20 07:52

Prep Method: 5030A

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<9.29	µg/Kg - dry	9.29	1	12/29/20 12:02	ELM	L529021
Surrogate: 4-Bromofluorobenzene	95.0		Limits: 60-130%	1	12/29/20 12:02	ELM	L529021
Surrogate: 1,2-Dichloroethane - d4	144 *		Limits: 60-132%	1	12/29/20 12:02	ELM	L529021
Surrogate: Toluene-d8	100		Limits: 70-130%	1	12/29/20 12:02	ELM	L529021

Analytical Method: 8270D **Prep Batch(es):** **L528991** 12/28/20 08:48

Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(a)pyrene	<4900	µg/Kg - dry	4900	5	12/28/20 23:01	CCB	L529005
Hexachlorobenzene	<12500	µg/Kg - dry	12500	5	12/28/20 23:01	CCB	L529005
Hexachlorobutadiene	<12500	µg/Kg - dry	12500	5	12/28/20 23:01	CCB	L529005
N-Nitrosodimethylamine	<12500	µg/Kg - dry	12500	5	12/28/20 23:01	CCB	L529005
Surrogate: 2-Fluorobiphenyl	59.4		Limits: 20-120%	5	12/28/20 23:01	CCB	L529005
Surrogate: Nitrobenzene-d5	58.7		Limits: 22-120%	5	12/28/20 23:01	CCB	L529005
Surrogate: 4-Terphenyl-d14	104		Limits: 22-120%	5	12/28/20 23:01	CCB	L529005

Qualifiers/ Definitions

*
DF

Outside QC Limit
Dilution Factor

B
MQL

Analyte detected in blank
Method Quantitation Limit



Client: NEFCO
Project: Class A EQ Biosolids
Lab Report Number: 20-357-0006
Date: 1/6/2021

CASE NARRATIVE

High Temp/Pressure Extraction for OC Pests Method 3546

Sample 74489 (Class a EQ Biosolids)

QC Batch No: L528732/L528732

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample.
Reporting limits are factored for the sample size reduction.

High Temp/Pressure Extraction for PCB's Method 3546

QC Batch No: L529576/L529576

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample.
Reporting limits are factored for the sample size reduction.

High Temp/Pressure Extraction for 8270 Method 3546

QC Batch No: L528991/L528991

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample.
Reporting limits are factored for the sample size reduction.

Metals Analysis Method 6010D

Sample 74491

Analyte: Aluminum

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Arsenic

QC Batch No: L529515

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Analyte: Calcium

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Chromium

QC Batch No: L529515

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Analyte: Copper

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.



Analyte: Iron

QC Batch No: L529515

The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A dilution test was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Analyte: Potassium

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Magnesium

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Manganese

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Sodium

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Phosphorus

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Sulfur

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Analyte: Zinc

QC Batch No: L529515

The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

Volatile Organic Compounds - GC/MS Method 8260B

Sample 74489 (Class a EQ Biosolids)

Analyte: 1,2-Dichloroethane-d4

QC Batch No: L529021/L529014

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Shipment Receipt Form

Customer Number: **09570**

Customer Name: **NEFCO**

Report Number: **20-357-0006**

Shipping Method

☒ Fed Ex ☐ US Postal ☐ Lab ☐ Other :
☐ UPS ☐ Client ☐ Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



WASTEWATER SAMP

7621 Whitepine Road Richmond VA 23231



NEFCO
Class A EQ Biosolids

20-357-0006
09570
12-22-2020
15:02:15

F CUSTODY

analytical.com

Account #

09570

Submitted By	Charge To	Copy To
Jordan G Dimitrov	NEFCO	Jordan Dimitrov
97 East Howard St.	97 East Howard St.	jdimitrov@nefcobiosolids.com
Quincy, MA 02169	Quincy, MA 02169	

Project: Phone: (617) 376-2500, ext.107 Fax: E-mail: jdimitrov@nefcobiosolids.com

Sample Information

Sample ID	Lab Number (Lab Use Only)	Collection Information			Container Information			Please Write in Desired Tests									
		Type	Date	Time	Number of Bottles	Type	Volume										
Class A EQ Biosolids	74489	___ Grab	12/14/2020	14:00	2	___ Glass	16 oz	see attached									
		x ___ Composite	12/21/2020	14:00		___ Plastic	___ pint ___ qt										
		___ Grab				___ Glass	___ oz										
		___ Composite				___ Plastic	___ pint ___ qt										
		___ Grab				___ Glass	___ oz										
		___ Composite				___ Plastic	___ pint ___ qt										
		___ Grab				___ Glass	___ oz										
		___ Composite				___ Plastic	___ pint ___ qt										

Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time
Jordan D. Dimitrov	12-21-20	15:00			
Fedex			Samantha Clarke	12/22/20	3:18pm

Test Available	Special Instructions or Remarks
Nitrogen Series: Total Kjeldahl, Ammonium, Nitrate & Organic Nitrogen. Phosphorus(total, orthor), Poatssium, Sulfate-Sulfur, Calcium, Magnesium, Sodium, Iron, Aluminum, Manganese, Copper, Zinc, Arsenic, Barium, Cadmium, Chromium, Cobalt, Molybdenum, Mercury, Lead, Selenium, Silver. Nickel. Acidity (Total), Alkalinity (Total), Biochemical Oxygen Demand (5 days), Boron, Chemical Oxygen Demand, Chloride, Conductance (Specific), Hexavalent Chromium, Oil and Grease (EPA), pH, Phenol, Solids (Dissolved, Suspended, Total, Volatile)	This is Class A Exceptional Quality Biosolids, a solid product, collected by NEFCO Operators at NEFCO-Quincy, MA facility The report will be presented to VA DEQ. The testing must be performed by VALAP-certified Lab.

Please report on a dry weight basis

Parameter	Units
Percent Solids	%
Volatile Solids	%
pH	SU
Alkalinity as CaCO ₃ ⁽³⁾	mg/kg
Nitrogen, (Nitrate)	mg/kg
Nitrogen, (Ammonium)	mg/kg
Nitrogen, (Total Kjeldahl)	mg/kg
Phosphorus, (Total)	mg/kg
Potassium, (Total)	mg/kg
Arsenic	mg/kg
Cadmium	mg/kg
Copper	mg/kg
Lead	mg/kg
Mercury	mg/kg
Molybdenum	mg/kg
Nickel	mg/kg
Selenium	mg/kg
Zinc	mg/kg

Polychlorinated biphenols _____ mg/kg

Parameter Biosolids Concentrations⁽¹⁾

Aldrin/dieldrin (total) _____ mg/kg

Benzo (a) pyrene _____ mg/kg

Chlordane _____ mg/kg

DDT/DDE/DDD (total)⁽²⁾ _____ mg/kg

Dimethyl nitrosamine _____ mg/kg

Heptachlor _____ mg/kg

Hexachlorobenzene _____ mg/kg

Hexachlorobutadiene _____ mg/kg

Lindane _____ mg/kg

Toxaphene _____ mg/kg

Trichloroethylene _____ mg/kg

(1) Values to be reported on a dry weight basis.

(2) Note: DDT = 2,2--Bis (p-chlorophenyl)--1,1--Trichloroethane; DDE = 1,1--Bis (p-chlorophenyl)--2,2--Dichloroethylene; DDD = 1,1--Bis (p-chlorophenyl)--2,2--Dichloroethane

Water Insoluble Nitrogen

Water Soluble Nitrogen



WASTEWATER SAMPLE TRANSMITTAL FORM/CHAIN OF CUSTODY

Waypoint Analytical

7621 Whitepine Road Richmond VA 23237 Tel: 804-743-9401 Fax: 804-271-6446 Email: supportva@waypointanalytical.com

Account #

09570

Customer Information

Submitted By	Charge To	Copy To
Jordan G Dimitrov	NEFCO	Jordan Dimitrov
97 East Howard St.	97 East Howard St.	jdimitrov@nefcobiosolids.com
Quincy, MA 02169	Quincy, MA 02169	

Project	Phone: (617) 376-2500, ext.107	Fax:	E-mail: jdimitrov@nefcobiosolids.com
---------	--------------------------------	------	--------------------------------------

Sample Information

Sample ID	Lab Number (Lab Use Only)	Collection Information			Container Information			Please Write in Desired Tests									
		Type	Date	Time	Number of Bottles	Type	Volume										
Class A EQ Biosolids		___ Grab	12/14/2020	14:00	2	___ Glass	16 oz	see attached									
		<input checked="" type="checkbox"/> Composite	12/21/2020	14:00		___ Plastic	___ pint ___ qt										
		___ Grab ___ Composite				___ Glass ___ Plastic	___ oz ___ pint ___ qt										
		___ Grab ___ Composite				___ Glass ___ Plastic	___ oz ___ pint ___ qt										
		___ Grab ___ Composite				___ Glass ___ Plastic	___ oz ___ pint ___ qt										

Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time

Test Available

Nitrogen Series: Total Kjeldahl, Ammonium, Nitrate & Organic Nitrogen.
Phosphorus(total, ortho), Potassium, Sulfate-Sulfur, Calcium, Magnesium, Sodium, Iron, Aluminum, Manganese, Copper, Zinc, Arsenic, Barium, Cadmium, Chromium, Cobalt, Molybdenum, Mercury, Lead, Selenium, Silver, Nickel. Acidity (Total), Alkalinity (Total), Biochemical Oxygen Demand (5 days), Boron, Chemical Oxygen Demand, Chloride, Conductance (Specific), Hexavalent Chromium, Oil and Grease (EPA), pH, Phenol, Solids (Dissolved, Suspended, Total, Volatile)

Special Instructions or Remarks

This is Class A Exceptional Quality Biosolids, a solid product, collected by NEFCO Operators at NEFCO-Quincy, MA facility
The report will be presented to VA DEQ.
~~The testing must be performed by VALAP-certified Lab.~~
Please report on a dry weight basis.

Please report on a dry weight basis

Parameter	Units
Percent Solids	%
Volatile Solids	%
pH	SU
Alkalinity as $\text{CaCO}_3^{(3)}$	mg/kg
Nitrogen, (Nitrate)	mg/kg
Nitrogen, (Ammonium)	mg/kg
Nitrogen, (Total Kjeldahl)	mg/kg
Phosphorus, (Total)	mg/kg
Potassium, (Total)	mg/kg
Arsenic	mg/kg
Cadmium	mg/kg
Copper	mg/kg
Lead	mg/kg
Mercury	mg/kg
Molybdenum	mg/kg
Nickel	mg/kg
Selenium	mg/kg
Zinc	mg/kg

Polychlorinated biphenols _____ mg/kg

Please report on a dry weight basis

Parameter	Biosolids Concentrations ⁽¹⁾
Aldrin/dieldrin (total)	_____ mg/kg
Benzo (a) pyrene	_____ mg/kg
Chlordane	_____ mg/kg
DDT/DDE/DDD (total) ⁽²⁾	_____ mg/kg
Dimethyl nitrosamine	_____ mg/kg
Heptachlor	_____ mg/kg
Hexachlorobenzene	_____ mg/kg
Hexachlorobutadiene	_____ mg/kg
Lindane	_____ mg/kg
Toxaphene	_____ mg/kg
Trichloroethylene	_____ mg/kg

⁽¹⁾ Values to be reported on a dry weight basis.

⁽²⁾ Note: DDT = 2,2--Bis (p-chlorophenyl)--1,1,1--Trichloroethane; DDE = 1,1--Bis (p-chlorophenyl)--2,2--Dichloroethylene; DDD = 1,1--Bis (p-chlorophenyl)--2,2--Dichloroethane

Water Insoluble Nitrogen

Water Soluble Nitrogen

CERTIFICATE OF ANALYSIS

Jordan Dimitrov
NEFCO
97 East Howard Street
Quincy, MA 01148

RE: Biosolids Fecal Coli (N/A)
ESS Laboratory Work Order Number: 20L0869

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.



Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 3:26 pm, Jan 07, 2021

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

Subcontracted Analyses

BAL Laboratory - Cranston, RI

Fecal Coliform



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20L0869

SAMPLE RECEIPT

The following samples were received on December 29, 2020 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
20L0869-01	EQ Class A Biosolids	Solid	%S, 2540G, 9221E



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20L0869

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20L0869

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH
MADEP 18-2.1 - VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids Fecal Coli
Client Sample ID: EQ Class A Biosolids
Date Sampled: 12/29/20 11:30
Percent Solids: 93

ESS Laboratory Work Order: 20L0869
ESS Laboratory Sample ID: 20L0869-01
Sample Matrix: Solid

Classical Chemistry

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
Percent Solid	93 (N/A)		2540G		1	JMG	12/30/20 16:20	%	DL03014



CERTIFICATE OF ANALYSIS

Client Name: NEFCO
Client Project ID: Biosolids Fecal Coli
Client Sample ID: EQ Class A Biosolids
Date Sampled: 12/29/20 11:30
Percent Solids: 93

ESS Laboratory Work Order: 20L0869
ESS Laboratory Sample ID: 20L0869-01
Sample Matrix: Solid

Microbiology

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>
Fecal Coliform	< 2 (N/A)		9221E		RJB	12/30/20 15:15	MPN/g dry
Percent Solids	93 (N/A)		%S		ESS	12/30/20 15:15	%



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20L0869

Notes and Definitions

<	Less than the Method Detection Limit.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
RL	Reporting Limit
EDL	Estimated Detection Limit
MF	Membrane Filtration
MPN	Most Probably Number
TNTC	Too numerous to Count
CFU	Colony Forming Units



CERTIFICATE OF ANALYSIS

Client Name: NEFCO

Client Project ID: Biosolids Fecal Coli

ESS Laboratory Work Order: 20L0869

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

ESS Laboratory Sample and Cooler Receipt Checklist

Client: NEFCO - TB
 Shipped/Delivered Via: ESS Courier

ESS Project ID: 20L0869
 Date Received: 12/29/2020
 Project Due Date: 1/6/2021
 Days for Project: 5 Day

1. Air bill manifest present? ☐ No
 Air No.: NA
2. Were custody seals present? ☐ No
3. Is radiation count <100 CPM? ☐ Yes
4. Is a Cooler Present? ☐ Yes
 Temp: 1 Iced with: Ice
5. Was COC signed and dated by client? ☐ Yes

6. Does COC match bottles? ☐ Yes
7. Is COC complete and correct? ☐ Yes
8. Were samples received intact? ☐ Yes
9. Were labs informed about short holds & rushes? ☒ Yes / No / NA
10. Were any analyses received outside of hold time? ☒ Yes / No

11. Any Subcontracting needed? ☒ Yes / No
 ESS Sample IDs: SM-9221E
 Analysis: 5
 TAT: 5

12. Were VOAs received? ☒ Yes / No
 a. Air bubbles in aqueous VOAs? ☒ Yes / No
 b. Does methanol cover soil completely? ☒ Yes / No / NA

13. Are the samples properly preserved? ☒ Yes / No
 a. If metals preserved upon receipt: ☒ Yes / No
 b. Low Level VOA vials frozen: ☒ Yes / No

Date: _____ Time: _____ By: _____
 Date: _____ Time: _____ By: _____

Sample Receiving Notes:

14. Was there a need to contact Project Manager? ☒ Yes / No
 a. Was there a need to contact the client? ☒ Yes / No
 Who was contacted? _____ Date: _____ Time: _____ By: _____

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	123034	Yes	N/A	Yes	Other Glass	NP	

2nd Review

Were all containers scanned into storage/lab?

Initials: JD

Are barcode labels on correct containers?

☒ Yes / No

Are all Flashpoint stickers attached/container ID # circled?

☒ Yes / No / NA

Are all Hex Chrome stickers attached?

☒ Yes / No / NA

Are all QC stickers attached?

☒ Yes / No / NA

Are VOA stickers attached if bubbles noted?

☒ Yes / No / NA

Completed

By: Jayal Davis

Date & Time: 18:30 12/29/20

Reviewed

By: [Signature]

Date & Time: 12/29/20 1857

Delivered

By: [Signature]

Date & Time: 12/29/20 1857

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

Page 1 of 1

Turn Time <input checked="" type="checkbox"/> Standard Other _____ If faster than 5 days, prior approval by laboratory is required # _____ State where samples were collected from: <input checked="" type="checkbox"/> MA <input type="checkbox"/> RI <input type="checkbox"/> CT <input type="checkbox"/> NH <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> ME Other _____ Is this project for any of the following: <input checked="" type="checkbox"/> MA-MCP* <input type="checkbox"/> Navy <input type="checkbox"/> USACE Other _____	Reporting Limits Electronic Deliverable <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ESS LAB PROJECT ID 2020869 Format pdf
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[illegible]

7/1/2020

NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD, 21502

Ref: Analytical Testing
Report Number: 20-169-0003
Project Description: Pellets Post Screener

Dear Rick Twigg:
Waypoint Analytical Virginia, Inc. received sample(s) on 6/17/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Sub-contracted testing is noted on the Sample Summary Table if applicable.

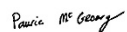
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Pauric McGroary
Agronomist

Sample Summary Table

Report Number: 20-169-0003

Client Project Description: Pellets Post Screener

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020		
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	AOAC 2.4.14	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	4500NO3F-2011	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	SM-2540G	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	SM-4500-NH3C	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	SM-4500-NH3C-TKN	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	AOAC 2.5.07	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	6010D	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	SW-7471B	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	9045D	WP MTN -
72663	Pellets Post Screener	Solids	06/16/2020 13:00	06/17/2020	AOAC 993.31	WP MTN -

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD 21502

Project Rick Twigg
Pellets Post Screener
Information :

Report Date : 07/01/2020
Received : 06/17/2020

Pauric McGroary

Submitted By : Rick Twigg
Report Number : **20-169-0003**

REPORT OF ANALYSIS

Pauric McGroary
Agronomist

Lab No : **72663**
Sample ID : **Pellets Post Screener**

Matrix: **Solids**
Sampled: **6/16/2020 13:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	9.64	%	0.010	1	06/23/20 17:02	FMM	SM-2540G
Available Phosphorus as P2O5	<0.110	% - dry	0.110	1	06/23/20 14:45	DXT	AOAC 993.31
Available Potassium (as K2O)	<0.232	% - dry	0.232	1	06/26/20 12:42	JRF	AOAC 2.5.07
Water Insoluble Nitrogen	3.84	% - dry	0.011	1	07/01/20 10:30	JPJ	AOAC 2.4.14
Water Soluble Nitrogen	6530	mg/Kg - dry	277	1	06/25/20 10:00		CALCULATION
Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Ammonia Nitrogen	2910	mg/Kg - dry	27.7	1	06/26/20 15:00	JPJ	SM-4500-NH3C
Nitrate+Nitrite-N	15.3	mg/Kg - dry	5.46	1	06/25/20 14:34	ZBD	4500NO3F-2011
Organic N	42100	mg/Kg - dry	277	1	06/25/20 10:00		CALCULATION
pH	7.4	s.u.		1	06/25/20 06:56	JSL	9045D
Total Solids	90.4	%	0.010	1	06/23/20 17:02	FMM	SM-2540G
Total Volatile Solids	59.4	%	0.010	1	06/23/20 17:02	FMM	SM-2540G
Total Kjeldahl Nitrogen	44900	mg/Kg - dry	277	1	06/25/20 10:00	JPJ	SM-4500-NH3C-TKN
Phosphorus	24200	mg/Kg - dry	27.7	5	06/25/20 18:18	JTR	6010D
Aluminum	38800	mg/Kg - dry	27.7	5	06/25/20 18:18	JTR	6010D
Arsenic	5.61	mg/Kg - dry	2.77	5	06/25/20 18:18	JTR	6010D
Calcium	21400	mg/Kg - dry	277	5	06/25/20 18:18	JTR	6010D
Cadmium	0.763	mg/Kg - dry	0.111	1	06/24/20 18:04	TJS	6010D
Chromium	19.8	mg/Kg - dry	0.276	1	06/24/20 18:04	TJS	6010D

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit

L Limit Exceeded

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland , MD 21502

Project Rick Twigg
Pellets Post Screener

Information :

Report Date : 07/01/2020
Received : 06/17/2020

Pauric McGroary

Submitted By : Rick Twigg
Report Number : **20-169-0003**

REPORT OF ANALYSIS

Pauric McGroary
Agronomist

Lab No : **72663**
Sample ID : **Pellets Post Screener**

Matrix: **Solids**
Sampled: **6/16/2020 13:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	219	mg/Kg - dry	0.553	1	06/24/20 18:04	TJS	6010D
Iron	13900	mg/Kg - dry	55.3	5	06/25/20 18:18	JTR	6010D
Lead	36.6	mg/Kg - dry	1.66	5	06/25/20 18:18	JTR	6010D
Magnesium	3170	mg/Kg - dry	5.53	1	06/24/20 18:04	TJS	6010D
Manganese	1060	mg/Kg - dry	2.77	5	06/25/20 18:18	JTR	6010D
Mercury	0.273	mg/Kg - dry	0.0171	1	06/24/20 12:13	DDB	SW-7471B
Molybdenum	3.70	mg/Kg - dry	0.276	1	06/24/20 18:04	TJS	6010D
Nickel	18.4	mg/Kg - dry	0.276	1	06/24/20 18:04	TJS	6010D
Potassium	1490	mg/Kg - dry	55.3	5	06/25/20 18:18	JTR	6010D
Selenium	2.72	mg/Kg - dry	0.553	1	06/24/20 18:04	TJS	6010D
Sodium	444	mg/Kg - dry	27.7	1	06/24/20 18:04	TJS	6010D
Zinc	489	mg/Kg - dry	1.38	1	06/24/20 18:04	TJS	6010D
Sulfur	8520	mg/Kg - dry	11.1	1	06/24/20 18:04	TJS	6010D

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit

L Limit Exceeded

Shipment Receipt Form

Customer Number: **01130**

Customer Name: **NEFCO**

Report Number: **20-169-0003**

Shipping Method

<input type="radio"/> Fed Ex	<input type="radio"/> US Postal	<input type="radio"/> Lab	<input type="radio"/> Other :	<input type="text"/>
<input checked="" type="radio"/> UPS	<input type="radio"/> Client	<input type="radio"/> Courier	Thermometer ID:	<input type="text"/>

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

Client Name/Address
NEFCO
400 E Offutt St
Cumberland, MD 21502

Client Project Manager/Contact
Rick Twigg/Plant Manager

Billing Information
NEFCO
400 E Offutt St
Cumberland, MD 21502

Project Description
Pellets Post Screener

Project/Site Location (City/State)
503 Metals/Cumberland,
MD

☐ RUSH - Additional charges apply
☐ Special Detection Limit(s)
Date Results Needed



NEFCO
Pellets Post Screener

20-169-0003
01130
06-17-2020
13:06:10

Groundwater
Oil/Solid O - Oil

Project Number

Project Manager Phone #
301-722-2380

Project Manager Email
rtwigg@nefcobioslids.com

Purchase Order Number

P - Product M - Misc

Site/Facility ID #
01130

Waypoint
ANALYTICAL

7621 Whitepine Road
Richmond, VA 23237
(804) 271-6446

Unless noted, all containers
per Table II of 40 CFR Part
136.

Number of Containers

Matrix (Refer to Key)

(g)rab or (C)omposite

SL 1

SL 2

503 METALS

NITROGEN SERIES

pH

VOLATILE SOLIDS

AVAILABLE K2O AS P2O5

SOLUBLE K2O TRN AS %

SOLUBLE/INSOLUBLE NITROGEN AS %

A
B
C
D
E
F
G
H
I

Cool < 10C Na2S2O3 (Micro Only)
Cool <= 6C
H2SO4 pH<2
None Required
NaOH pH>10
HNO3 pH<2
HCL pH<2
H3PO4 pH<2
Cool <= 6C NA2S2O3

Date Time

Sample Identification

Pellets (Post Screener)

1

C

Required Analysis / Preservative

✓

✓

✓

✓

✓

✓

✓

✓

✓

Comments/Notes

8 OZ/GLASS

For Laboratory Use Only

Ice

Custody
Seals

Lab Comments

Y / N

Y / N

Blank/Cooler Temp

Sampled by (Name - Print)

Shawn Browning

Relinquished by: (SIGNATURE)

Shawn Browning

Relinquished by: (SIGNATURE)

Relinquished by: (SIGNATURE)

Client Remarks/Comments

Email results to rtwigg@nefcobioslids.com/Phone 301-722-2380 (O) 301-876-1956 (C)

Date Time

6/16/20 14:00

Date Time

6/17/20

Date Time

Received by: (SIGNATURE)

Received by: (SIGNATURE)

Received by: (SIGNATURE)

Date Time

Date Time

Date Time

Temp below 6°C



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364



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NEFCO
400 East Offutt St.
Cumberland MD, 21502
Project Manager: Rick Twigg

Project: FECAL

Project Number: [none]

Collector: CLIENT

Number of Containers: 1

Reported:

07/02/20 10:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
PELLETS/POST SCREENER	0F22231-01	Solid	Grab	06/18/20 10:30	06/18/20 17:10

Client Sample ID: PELLETS/POST SCREENER

Date/Time Sampled: 06/18/20 10:30

Laboratory Sample ID: 0F22231-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

Microbiological Parameters by Standard Methods 9221E + EPA 625/R-92/013 App F

Fecal Coliforms	<0.189	0.189	MPN/g dry	06/18/20 18:20	SM 9221 E+C-2006	blm	
-----------------	--------	-------	-----------	----------------	---------------------	-----	--

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

Michael P. Tyler
Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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NEFCO
400 East Offutt St.

Cumberland MD, 21502

Project Manager: Rick Twigg

Project: FECAL

Project Number: [none]

Collector: CLIENT

Number of Containers: 1

Reported:

07/02/20 10:17

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* **Analysis location indicator:**
D: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258.
E: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. PA Registered Laboratory: PA 25-05907.
G: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392.
P: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684.
W: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.

< Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

Fairway Laboratories, Inc.

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NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

NEFCO

Project: FECAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

07/02/20 10:17

Project Manager: Rick Twigg

Number of Containers: 1

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.



2019 9th Ave.
P.O. Box 1925
Allcoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

Client Page # _____ of _____

LAB USE ONLY

Work Order #

0122231

Attach #

FLI Page #

1 of 2

Tracking #

Bottle Type/Comments

8oz Clear Jar C

Analyses Requested

Received on ice? Y N

Reportable to PADEP? Yes ☐

Sample Temp.

PWSID #

GRAB Composite Start Composite End

Matrix

GRAB Composite Start Composite End

Military or AM/PM required

Start Date

Start Time

End Date

End Time

Solid

Water

Other

of Containers

FECAL

X

1

X

1

X

1

X

1

X

1

X

1

X

Sample Description/Location

Pellets (Post Screen)

X

1

X

1

X

1

X

1

X

1

X

1

X

1

X

1

X

1

X

1

X

1

X

1

X

TAT: Normal ☐ Rush ☐

Rush TAT subject to pre-approval and surcharge.

Date Required: ____/____/____

GRAB Composite

GRAB Composite Start Composite End

GRAB Composite Start Composite End

GRAB Composite Start Composite End

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GRAB Composite Start Composite End

Sampled by:

(Signature) *Shawn Downing*

Date

10/18/12

Time

10:30

Received by:

(Signature) *PAK*

Date

10/18/12

Time

11:00

Relinquished by:

(Signature) *Shawn Downing*

Date

10/18/12

Time

11:00

Relinquished by:

(Signature) *PAK*

Date

10/18/12

Time

Relinquished by:

(Signature) *Shawn Downing*

Date

10/18/12

Time

11:00

Relinquished by:

(Signature) *PAK*

Date

10/18/12

Time

11:00

Relinquished by:

(Signature) *PAK*

Date

10/18/12

Time

11:00

Relinquished by:

(Signature) *PAK*

Date

Relinquished by:

(Signature) *Shawn Downing*

Date

10/18/12

Time

11:00

Relinquished by:

(Signature) *PAK*

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10/18/12

Time

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(Signature) *PAK*

Date

10/18/12

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11:00

Relinquished by:

(Signature) *PAK*

Date

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(Signature) *Shawn Downing*

Date

10/18/12

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10/18/12

Time

11:00

Relinquished by:

(Signature) *PAK*

Date

Relinquished by:

(Signature) *Shawn Downing*

Date

10/18/12

Time

11:00

Relinquished by:

(Signature) *PAK*

Date

10/2/2020

NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD, 21502

Ref: Analytical Testing
Report Number: 20-260-0002
Project Description: Pellets Post Screener

Dear Rick Twigg:
Waypoint Analytical Virginia, Inc. received sample(s) on 9/16/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Sub-contracted testing is noted on the Sample Summary Table if applicable.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink that reads "Pauric McGroary". The signature is written in a cursive, slightly slanted style.

Pauric McGroary
Agronomist

Sample Summary Table

Report Number: 20-260-0002
Client Project Description: Pellets Post Screener

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020		
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	AOAC 2.4.14	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	4500NO3F-2011	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	SM-2540G	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	SM-4500-NH3C	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	SM-4500-NH3C-TKN	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	AOAC 2.5.07	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	6010D	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	SW-7471B	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	9045D	WP MTN -
73641	3 Month Composite	Solids	09/15/2020 15:00	09/16/2020	AOAC 993.31	WP MTN -

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD 21502

Project Pellets Post Screener
Information :

Report Date : 10/02/2020
Received : 09/16/2020

Paucic Mc Groary

Report Number : **20-260-0002**

REPORT OF ANALYSIS

Paucic Mc Groary Ph.D., CPAg
Agronomist

Lab No : **73641**

Matrix: **Solids**

Sample ID : **3 Month Composite**

Sampled: **9/15/2020 15:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	4.49	%	0.010	1	09/21/20 16:42	FMM	SM-2540G
Available Phosphorus as P2O5	3.51	% - dry	0.104	1	09/24/20 09:41	DXT	AOAC 993.31
Available Potassium (as K2O)	0.139	% - dry		1	09/21/20 13:27	DXT	AOAC 2.5.07
Water Insoluble Nitrogen	3.51	% - dry	0.010	1	09/24/20 10:00	JPJ	AOAC 2.4.14
Water Soluble Nitrogen	3560	mg/Kg - dry	262	1	09/24/20 10:00		CALCULATION

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Ammonia Nitrogen	2180	mg/Kg - dry	26.2	1	09/25/20 14:30	JPJ	SM-4500-NH3C
Nitrate+Nitrite-N	9.15	mg/Kg - dry	4.97	1	09/22/20 13:50	ZBD	4500NO3F-2011
Organic N	36400	mg/Kg - dry	262	1	09/25/20 10:00		CALCULATION
pH	7.5	s.u.		1	09/18/20 16:35	KEW	9045D
Total Solids	95.5	%	0.010	1	09/21/20 16:42	FMM	SM-2540G
Total Volatile Solids	55.3	%	0.010	1	09/21/20 16:42	FMM	SM-2540G
Total Kjeldahl Nitrogen	38600	mg/Kg - dry	262	1	09/25/20 10:00	JPJ	SM-4500-NH3C-TKN
Phosphorus	22700	mg/Kg - dry	26.2	5	09/23/20 16:32	TJS	6010D
Aluminum	38700	mg/Kg - dry	26.2	5	09/23/20 16:32	TJS	6010D
Arsenic	6.41	mg/Kg - dry	0.523	1	09/22/20 17:58	TJS	6010D
Calcium	23700	mg/Kg - dry	262	5	09/23/20 16:32	TJS	6010D
Cadmium	1.07	mg/Kg - dry	0.105	1	09/22/20 17:58	TJS	6010D
Chromium	21.6	mg/Kg - dry	0.261	1	09/22/20 17:58	TJS	6010D

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit

L Limit Exceeded

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland , MD 21502

Project Pellets Post Screener
Information :

Report Date : 10/02/2020
Received : 09/16/2020

Pauric Mc Groary

Report Number : **20-260-0002**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **73641**

Matrix: **Solids**

Sample ID : **3 Month Composite**

Sampled: **9/15/2020 15:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	258	mg/Kg - dry	0.524	1	09/22/20 17:58	TJS	6010D
Iron	15400	mg/Kg - dry	52.4	5	09/23/20 16:32	TJS	6010D
Lead	54.0	mg/Kg - dry	0.314	1	09/22/20 17:58	TJS	6010D
Magnesium	3870	mg/Kg - dry	5.24	1	09/22/20 17:58	TJS	6010D
Manganese	901	mg/Kg - dry	2.62	5	09/23/20 16:32	TJS	6010D
Mercury	0.393	mg/Kg - dry	0.0158	1	09/22/20 12:20	DDB	SW-7471B
Molybdenum	6.70	mg/Kg - dry	0.261	1	09/22/20 17:58	TJS	6010D
Nickel	20.0	mg/Kg - dry	0.261	1	09/22/20 17:58	TJS	6010D
Potassium	1360	mg/Kg - dry	52.4	5	09/23/20 16:32	TJS	6010D
Selenium	1.68	mg/Kg - dry	0.523	1	09/22/20 17:58	TJS	6010D
Sodium	399	mg/Kg - dry	26.2	1	09/22/20 17:58	TJS	6010D
Zinc	673	mg/Kg - dry	6.54	5	09/23/20 16:32	TJS	6010D
Sulfur	9640	mg/Kg - dry	10.5	1	09/22/20 17:58	TJS	6010D

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit

L Limit Exceeded



Client: NEFCO
Project: Pellets Post Screener
Lab Report Number: 20-260-0002
Date: 10/2/2020

CASE NARRATIVE

Solids Total Mercury Analysis - CVAA Method 7471A

Sample 73664

Analyte: Mercury

QC Batch No: L512539

The matrix spike, matrix spike duplicate and the post digestion spike were all outside of the quality control acceptance ranges. Matrix interference is suspected

Shipment Receipt Form

Customer Number: **01130**

Customer Name: **NEFCO**

Report Number: **20-260-0002**

Shipping Method

☐ Fed Ex ☐ US Postal ☐ Lab ☐ Other :
☒ UPS ☐ Client ☐ Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364



www.fairwaylaboratories.com

NEFCO

400 East Offutt St.

Cumberland MD, 21502

Project Manager: Rick Twigg

Project: FECAL

Project Number: [none]

Collector: CLIENT

Number of Containers: 1

Reported:

09/23/20 10:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
PELLETS/POST SCREENER	0I13065-01	Solid	Grab	09/10/20 10:00	09/10/20 16:00

Client Sample ID: PELLETS/POST SCREENER

Date/Time Sampled: 09/10/20 10:00

Laboratory Sample ID: 0I13065-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

Microbiological Parameters by Standard Methods 9221E + EPA 625/R-92/013 App F

Fecal Coliforms	0.475	0.190	MPN/g dry	09/10/20 16:30	SM 9221 E+C-2006	bng	
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Fairway Laboratories, Inc.

Reviewed and Submitted by:

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

Michael P. Tyler
Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364



www.fairwaylaboratories.com

NEFCO
400 East Offutt St.

Cumberland MD, 21502

Project Manager: Rick Twigg

Project: FECAL

Project Number: [none]

Collector: CLIENT

Number of Containers: 1

Reported:

09/23/20 10:08

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

+ MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* **Analysis location indicator:**
D: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258.
E: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. PA Registered Laboratory: PA 25-05907.
G: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392.
P: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684.
W: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.

< Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.

Fairway Laboratories, Inc.

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PO Box 1925
Altoona, PA 16603
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NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

NEFCO

Project: FECAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

09/23/20 10:08

Project Manager: Rick Twigg

Number of Containers: 1

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Please print. See back of COC for instructions/terms and conditions.

FAIRWAY LABORATORIES
Environmental Laboratory

0113065 #1
COC #

Page 1 of 1

Client Name: NEICO Cumberland
Address: 400 E. 8th St
Cumberland, MD 21502
Contact: Rick Twigg
Phone #: 301-722-2380
Fax #: 301-722-2381
Project Name: Federal Post Receiver
Quote/PO #: _____

Received on ice? Y N

Reportable to
PADEP?
Yes ☐

Analyses Requested

LAB USE ONLY

FedEx	USPS
UPS	Other

Tracking

TAT: Normal ☐ Rush ☐
Rush TAT subject to pre-approval and surcharge.
Date Required: _____ / _____ / _____

GRAB
Composite

Sample Description/Location
Pellets/Post Sweeney

Start Date	Start Time	End Date	End Time
1		9/10/20	10:00

<input checked="" type="checkbox"/>	Solid
<input type="checkbox"/>	Water
<input type="checkbox"/>	Other

of Containers

Fecal

Bottle Type/Comments

802 Clear Glass

Sampled by: *Pat J.*

Date	Time
9/1/12	11:00

Received by:

Date	Time
------	------

Remarks

Relinquished by:

2000

Received by:

Date _____ Time _____

Email Results rtwigg@nrcbiosolids.com

Relinquished by:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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Received by:

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Relinquished by:

Received by:

[illegible]

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File

Canary - FLI Copy

Pink - Customer Receipt Copy

1/4/2021

NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD, 21502

Ref: Analytical Testing
Report Number: 20-353-0008
Project Description: Pellets Post Screener

Dear Rick Twigg:

Waypoint Analytical Virginia, Inc. received sample(s) on 12/18/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Sub-contracted testing is noted on the Sample Summary Table if applicable.

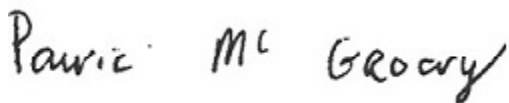
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Pauric McGroary
Agronomist

Sample Summary Table

Report Number: 20-353-0008

Client Project Description: Pellets Post Screener

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020		
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	AOAC 2.4.14	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	4500NO3F-2011	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	SM-2540G	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	SM-4500-NH3C	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	SM-4500-NH3C-TKN	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	AOAC 2.5.07	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	6010D	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	SW-7471B	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	9045D	WP MTN -
74465	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	AOAC 993.31	WP MTN -

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD 21502

Project Rick Twigg
Pellets Post Screener
Information :

Report Date : 01/04/2021
Received : 12/18/2020

Pauric Mc Groary

Submitted By : Rick Twigg
Report Number : **20-353-0008**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74465**
Sample ID : **Pellets Post Screener**

Matrix: **Solids**
Sampled: **12/17/2020 15:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	5.26	%	0.010	1	12/22/20 16:44	FMM	SM-2540G
Available Phosphorus as P2O5	4.76	% - dry	0.105	1	12/28/20 11:42	DXT	AOAC 993.31
Available Potassium (as K2O)	0.204	% - dry		1	12/29/20 15:07	DXT	AOAC 2.5.07
Water Insoluble Nitrogen	4.29	% - dry	0.021	1	01/03/21 13:00	JPJ	AOAC 2.4.14
Water Soluble Nitrogen	5490	mg/Kg - dry	264	1	12/31/20 14:00		CALCULATION

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Ammonia Nitrogen	1470	mg/Kg - dry	26.4	1	12/31/20 11:30	JPJ	SM-4500-NH3C
Nitrate+Nitrite-N	8.54	mg/Kg - dry	4.89	1	12/23/20 10:34	ZBD	4500NO3F-2011
Organic N	46900	mg/Kg - dry	264	1	12/31/20 11:30		CALCULATION
pH	6.4	s.u.		1	12/29/20 13:19	CxC	9045D
Total Solids	94.7	%	0.010	1	12/22/20 16:44	FMM	SM-2540G
Total Volatile Solids	63.7	%	0.010	1	12/22/20 16:44	FMM	SM-2540G
Total Kjeldahl Nitrogen	48300	mg/Kg - dry	264	1	12/31/20 14:00	JPJ	SM-4500-NH3C-TKN
Phosphorus	19000	mg/Kg - dry	26.4	5	12/28/20 17:32	JADS	6010D
Aluminum	27700	mg/Kg - dry	26.4	5	12/28/20 17:32	JADS	6010D
Arsenic	5.01	mg/Kg - dry	0.527	1	12/28/20 17:16	JADS	6010D
Calcium	17000	mg/Kg - dry	264	5	12/28/20 17:32	JADS	6010D
Cadmium	0.583	mg/Kg - dry	0.106	1	12/24/20 04:03	JADS	6010D
Chromium	16.3	mg/Kg - dry	0.263	1	12/24/20 04:03	JADS	6010D

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit

L Limit Exceeded

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland , MD 21502

Project Rick Twigg
Pellets Post Screener
Information :

Report Date : 01/04/2021
Received : 12/18/2020

Pauric Mc Groary

Submitted By : Rick Twigg
Report Number : **20-353-0008**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74465**
Sample ID : **Pellets Post Screener**

Matrix: **Solids**
Sampled: **12/17/2020 15:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Copper	197	mg/Kg - dry	0.528	1	12/24/20 04:03	JADS	6010D
Iron	12000	mg/Kg - dry	52.8	5	12/28/20 17:32	JADS	6010D
Lead	29.1	mg/Kg - dry	0.316	1	12/24/20 04:03	JADS	6010D
Magnesium	2320	mg/Kg - dry	5.28	1	12/24/20 04:03	JADS	6010D
Manganese	887	mg/Kg - dry	2.64	5	12/28/20 17:32	JADS	6010D
Mercury	0.273	mg/Kg - dry	0.0160	1	12/29/20 11:02	DDB	SW-7471B
Molybdenum	4.32	mg/Kg - dry	0.263	1	12/24/20 04:03	JADS	6010D
Nickel	13.3	mg/Kg - dry	0.263	1	12/24/20 04:03	JADS	6010D
Potassium	1280	mg/Kg - dry	52.8	5	12/28/20 17:32	JADS	6010D
Selenium	2.94	mg/Kg - dry	0.527	1	12/29/20 17:41	TJS	6010D
Sodium	298	mg/Kg - dry	26.4	1	12/24/20 04:03	JADS	6010D
Zinc	506	mg/Kg - dry	1.32	1	12/24/20 04:03	JADS	6010D
Sulfur	7840	mg/Kg - dry	10.6	1	12/24/20 04:03	JADS	6010D

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit

L Limit Exceeded

Shipment Receipt Form

Customer Number: **01130**

Customer Name: **NEFCO**

Report Number: **20-353-0008**

Shipping Method

<input type="radio"/> Fed Ex	<input type="radio"/> US Postal	<input type="radio"/> Lab	<input type="radio"/> Other :	<input type="text"/>
<input checked="" type="radio"/> UPS	<input type="radio"/> Client	<input type="radio"/> Courier	Thermometer ID:	<input type="text"/>

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

Client Name/Address
NEFCO
400 E Offutt St
Cumberland, MD 21502

Client Project Manager/Contact
Rick Twigg/Plant Manager

Billing Information
NEFCO
400 E Offutt St
Cumberland, MD 21502



Project Description
Pellets Post Screener

Project/Site Location (City/State)
503 Metals/Cumberland,
MD

☐ RUSH - Additional charges apply
☐ Special Detection Limit(s)
Date Results Needed

☐ Courier ☐ Client Drop Off
Other

DW - Drinking water
P - Product M - Misc

Project Number

Project Manager Phone #
301-722-2380

Project Manager Email
rtwigg@nefcobioslids.com

Purchase Order Number

Site/Facility ID #
01130

Waypoint
ANALYTICAL

7621 Whitepine Road
Richmond, VA 23237
(804) 271-6446

Unless noted, all containers
per Table II of 40 CFR Part
136.

Number of Containers

Matrix (Refer to Key)

(G)rab or (C)omposite

SL 1

SL 2

503 METALS

NITROGEN SERIES

pH

VOLATILE SOLIDS

AVAILABLE K2O AS P2O5

SOLUBLE K2O TKN AS %

SOLUBLE NITROGEN AS %

A Cool < 10C Na2S2O3 (Micro Only)
B Cool < 6C
C H2SO4 pH<2
D None Required
E NaOH pH>10
F HNO3 pH<2
G HCL pH<2
H H3PO4 pH<2
I Cool < 5C Na2S2O3

Date	Time	Sample Identification	Number of Containers	Matrix (Refer to Key)	(G)rab or (C)omposite	SL 1	SL 2	503 METALS	NITROGEN SERIES	pH	VOLATILE SOLIDS	AVAILABLE K2O AS P2O5	SOLUBLE K2O TKN AS %	SOLUBLE NITROGEN AS %	Comments/Notes
12/17/20	15:30	Pellets Post Screener	1	S	C	✓	✓	✓	✓	✓	✓	✓	✓	✓	8 OZ/GLASS
		9/30 - 9:00													
		9/30 - 12:00													80320
		10/21 - 15:00													80350
		10/21 - 21:00													280
		11/30 - 9:00													285
		11/30 - 15:00													95.59%
		12/9 - 9:00													TS M/A
		12/9 - 17:00													

For Laboratory Use Only

Ice
Y/N

Custody
Seals
Y/N

Lab Comments

Sampled by (Name - Print)

Rick Twigg

Relinquished by: (SIGNATURE)

Relinquished by: (SIGNATURE)

Relinquished by: (SIGNATURE)

Client Remarks/Comments

Email results to rtwigg@nefcobioslids.com/Phone 301-722-2380 (O) 301-876-1956 (C)

Date Time
12/17/20 17:30

Received by: (SIGNATURE)

Date Time

Date Time
12/18/20

Received by: (SIGNATURE)

Date Time

Date Time

Received by: (SIGNATURE)

Date Time

Temp below 6°C



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364



www.fairwaylaboratories.com

NEFCO

400 East Offutt St.

Cumberland MD, 21502

Project Manager: Rick Twigg

Project: FECAL

Project Number: [none]

Collector: CLIENT

Number of Containers: 1

Reported:

12/23/20 13:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
PELLET/POST SCREENER	0L18191-01	Solid	Grab	12/17/20 10:00	12/17/20 17:00

Client Sample ID: PELLET/POST SCREENER

Date/Time Sampled: 12/17/20 10:00

Laboratory Sample ID: 0L18191-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

Microbiological Parameters by Standard Methods 9221E + EPA 625/R-92/013 App F

Fecal Coliforms	8.03	0.183	MPN/g dry	12/17/20 17:40	SM 9221 E+C-2006	blm	
-----------------	------	-------	-----------	----------------	---------------------	-----	--

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

Michael P. Tyler
Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



2019 Ninth Avenue
PO Box 1925
Altoona, PA 16603
(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364



www.fairwaylaboratories.com

NEFCO
400 East Offutt St.

Cumberland MD, 21502

Project Manager: Rick Twigg

Project: FECAL

Project Number: [none]

Collector: CLIENT

Number of Containers: 1

Reported:

12/23/20 13:12

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

+ MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* **Analysis location indicator:**
D: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258.
E: Indicates analysis performed by Fairway Laboratories, Inc., 1920 East 38th Street, Erie, PA 16510. NELAP certification: PA 25-05907.
G: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392.
P: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684.
W: Indicates analysis performed by Fairway Laboratories, Inc., 1980 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622 and NY 12127.

< Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.



2019 Ninth Avenue
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NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364

www.fairwaylaboratories.com

NEFCO

Project: FECAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

12/23/20 13:12

Project Manager: Rick Twigg

Number of Containers: 1

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

Fairway Laboratories, Inc.

Fairway Labs in Altoona, PA is a NELAP (National Environmental Laboratory Accreditation Program) accredited lab, and as such, certifies that all applicable test results meet the requirements of NELAP, unless otherwise stated on the analytical report.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791



89 Kristi Rd
Pennsdale, PA 17756
Phone: (570) 494-6380

Page 1 of 12

0218191
COC #

Client Name: <u>NEFCO Cumberland</u>		Address: <u>400 E. 01st St</u>		Contact: <u>Bob Rick Twigg</u>		Phone #: <u>301-722-2380</u>		Fax #: <u>301-722-2381</u>		Project Name: <u>Fecal Post SCREENER</u>		Quote/PO #: _____	
TAT: Normal <input type="checkbox"/> Rush <input type="checkbox"/>		Rush TAT subject to pre-approval and surcharge		Date Required: <u> / / </u>		GRAB		Composite		Received on ice? Y N		Reportable to PADEP? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Sample Description/Location		Start Date		Start Time		End Date		End Time		Solid		Water	
Rockets/Post SCREENER		✓		12/17/20		10:00		✓		1		Fecal	
GRAB		Composite		Composite		End		Matrix		# of Containers		Analyses Requested	
Bottle Type/Comments		802 Glass Jar		6.43		LAB USE ONLY		FedEx		USPS		UPS	
Tracking #													
Date		Time		Received by:		Date		Time		Remarks			
Sampled by: <u>Bob Twigg</u>		12/17/20		10:00		Received by: <u>Paula</u>		12/17/20		10:15			
Relinquished by: <u>Bob Twigg</u>		12/17/20		10:15		Received by: <u>Paula</u>		12/17/20		10:15			
Relinquished by: <u> </u>		Date		Time		Received by: <u> </u>		Date		Time			
Relinquished by: <u> </u>		Date		Time		Received by: <u> </u>		Date		Time			

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

12/30/2020

NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD, 21502

Ref: Analytical Testing
Report Number: 20-353-0009
Project Description: Pellets Post Screener

Dear Rick Twigg:
Waypoint Analytical Virginia, Inc. received sample(s) on 12/18/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Sub-contracted testing is noted on the Sample Summary Table if applicable.

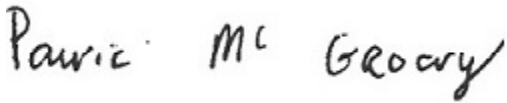
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Pauric McGroary
Agronomist



Sample Summary Table

Report Number: 20-353-0009

Client Project Description: Pellets Post Screener

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
74466	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	SM-2540G	WP MTN -
74466	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	8081A	WP MTN -
74466	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	8260B	WP MTN -
74466	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	8270D	WP MTN -
74466	Pellets Post Screener	Solids	12/17/2020 15:30	12/18/2020	SM-2320 B	WP MTN -

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland, MD 21502

Project Rick Twigg
Pellets Post Screener
Information :

Report Date : 12/30/2020
Received : 12/18/2020

Pauric Mc Groary

Submitted By : Rick Twigg
Report Number : **20-353-0009**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74466**
Sample ID : **Pellets Post Screener**

Matrix: **Solids**
Sampled: **12/17/2020 15:30**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	4.15	%	0.010	1	12/23/20 16:23	FMM	SM-2540G

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Alkalinity (as CaCO ₃)	3670	mg/Kg - dry	104	1	12/22/20 17:15	CXB	SM-2320 B
Total Solids	95.8	%	0.010	1	12/23/20 16:23	FMM	SM-2540G

Analytical Method: 8081A
Prep Method: 3546

Prep Batch(es): **L528732** 12/28/20 09:45

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aldrin	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163
Chlordane	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163
4,4'-DDD	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163
4,4'-DDE	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163
4,4'-DDT	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163
Dieldrin	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163
gamma-BHC	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163
Heptachlor	<24.5	µg/Kg - dry	24.5	10	12/30/20 10:10	VIC	L529163

Qualifiers/ Definitions

*
DF

Outside QC Limit
Dilution Factor

B
MQL

Analyte detected in blank
Method Quantitation Limit

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland , MD 21502

Project Rick Twigg
Pellets Post Screener
Information :

Report Date : 12/30/2020
Received : 12/18/2020

Pauric Mc Groary

Submitted By : Rick Twigg
Report Number : **20-353-0009**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74466**
Sample ID : **Pellets Post Screener**

Matrix: **Solids**
Sampled: **12/17/2020 15:30**

Analytical Method: 8081A **Prep Batch(es):** **L528732** 12/28/20 09:45
Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Toxaphene	<2450	µg/Kg - dry	2450	10	12/30/20 10:10	VIC	L529163
Surrogate: Decachlorobiphenyl	54.0		Limits: 37-165%	10	12/30/20 10:10	VIC	L529163
Surrogate: Tetrachloro-m-xylene	66.0		Limits: 18-158%	10	12/30/20 10:10	VIC	L529163

Analytical Method: 8260B **Prep Batch(es):** **L529014** 12/29/20 07:52
Prep Method: 5030A

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<10.1	µg/Kg - dry	10.1	1	12/29/20 11:20	ELM	L529021
Surrogate: 4-Bromofluorobenzene	98.8		Limits: 60-130%	1	12/29/20 11:20	ELM	L529021
Surrogate: 1,2-Dichloroethane - d4	152 *		Limits: 60-132%	1	12/29/20 11:20	ELM	L529021
Surrogate: Toluene-d8	100		Limits: 70-130%	1	12/29/20 11:20	ELM	L529021

Analytical Method: 8270D **Prep Batch(es):** **L528991** 12/28/20 08:48
Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(a)pyrene	<4770	µg/Kg - dry	4770	5	12/28/20 22:40	CCB	L529005
Hexachlorobenzene	<12100	µg/Kg - dry	12100	5	12/28/20 22:40	CCB	L529005
Hexachlorobutadiene	<12100	µg/Kg - dry	12100	5	12/28/20 22:40	CCB	L529005

Qualifiers/	*	Outside QC Limit	B	Analyte detected in blank
Definitions	DF	Dilution Factor	MQL	Method Quantitation Limit

01130
NEFCO
Rick Twigg
400 E Offutt St.
Cumberland , MD 21502

Project Rick Twigg
Pellets Post Screener
Information :

Report Date : 12/30/2020
Received : 12/18/2020

Pauric Mc Groary

Submitted By : Rick Twigg
Report Number : **20-353-0009**

REPORT OF ANALYSIS

Pauric Mc Groary Ph.D., CPAg
Agronomist

Lab No : **74466**
Sample ID : **Pellets Post Screener**

Matrix: **Solids**
Sampled: **12/17/2020 15:30**

Analytical Method: 8270D **Prep Batch(es):** **L528991** 12/28/20 08:48
Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
N-Nitrosodimethylamine	<12100	µg/Kg - dry	12100	5	12/28/20 22:40	CCB	L529005
Surrogate: 2-Fluorobiphenyl	46.0		Limits: 20-120%	5	12/28/20 22:40	CCB	L529005
Surrogate: Nitrobenzene-d5	44.6		Limits: 22-120%	5	12/28/20 22:40	CCB	L529005
Surrogate: 4-Terphenyl-d14	102		Limits: 22-120%	5	12/28/20 22:40	CCB	L529005

Qualifiers/ Definitions

*	Outside QC Limit	B	Analyte detected in blank
DF	Dilution Factor	MQL	Method Quantitation Limit



Client: NEFCO
Project: Pellets Post Screener
Lab Report Number: 20-353-0009
Date: 12/30/2020

CASE NARRATIVE

High Temp/Pressure Extraction for OC Pests Method 3546

Sample 74466 (Pellets Post Screener)

QC Batch No: L528732/L528732

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample.
Reporting limits are factored for the sample size reduction.

High Temp/Pressure Extraction for 8270 Method 3546

QC Batch No: L528991/L528991

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample.
Reporting limits are factored for the sample size reduction.

Volatile Organic Compounds - GC/MS Method 8260B

Analyte: 1,2-Dichloroethane-d4

QC Batch No: L529021/L529014

Surrogate(s) exhibited a high bias in this project sample where no target analytes were detected. The high recovery(s) had no impact on the data. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Shipment Receipt Form

Customer Number: **01130**

Customer Name: **NEFCO**

Report Number: **20-353-0009**

Shipping Method

☐ Fed Ex ☐ US Postal ☐ Lab ☐ Other :
☒ UPS ☐ Client ☐ Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

Temp below 6°C ♂

VA Permit Constituents for Analysis

Alkalinity as CaCO ₃	✓	_____	mg/kg
Q131 Aldrin/dieldrin (total)	✓	_____	mg/kg
Q1251 Benzo (a) pyrene	✓	_____	mg/kg
Q131 Chlordane	✓	_____	mg/kg
Q131 DDT/DDE/DDD (total)	✓	_____	mg/kg
Q1251 Dimethyl nitrosamine		N-Nitrosodi methylamine	mg/kg
Q131 Heptachlor	✓	_____	mg/kg
Q1251 Hexachlorobenzene	✓	_____	mg/kg
Q1251 Hexachlorobutadiene	✓	_____	mg/kg
Q131 Lindane	✓	gamma-BHC	mg/kg
Q131 Toxaphene	✓	_____	mg/kg
Q1111 Trichloroethylene	✓	_____	mg/kg

Values to be reported on a dry weight basis

Note: DDT=--Bis (p-chlorophenyl)—1, 1,1 —Trichloroethane; DDE + 1,1—
 bis (p-chlorophenyl)—2,2—Dichloroethylene; DDD= 1,1—Bis
 pchlorophenyl)—2,2—Dichloroethane

20-353-0009
 01130
 12-18-2020
 14:08:34



NEFCO
 Pellets Post Screener



2019 Ninth Avenue
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(814) 946-4306

NELAP: PA 07-062, VA 460212
State Certifications: MD 275, WV 364



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NEFCO

400 East Offutt St.

Cumberland MD, 21502

Project Manager: Rick Twigg

Project: GENERAL

Project Number: [none]

Collector: CLIENT

Number of Containers: 1

Reported:

03/09/20 17:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Sample Type	Date Sampled	Date Received
SOLIDS/POST SCREENER	0B21122-01	Solid	Grab	02/20/20 10:00	02/20/20 17:00

Fairway Laboratories, Inc.

Reviewed and Submitted by:

Michael P. Tyler
Laboratory Director

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NEFCO

Project: GENERAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Client Sample ID: SOLIDS/POST SCREENER

Date/Time Sampled: 02/20/20 10:00

Laboratory Sample ID: 0B21122-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

Analyses to be performed immediately upon sampling. See Definition indicated by: #

# pH @ 24.8°C	6.85			pH Units	02/26/20 13:50	SW846-9045 D	elb	
---------------	------	--	--	----------	----------------	--------------	-----	--

Conventional Chemistry Parameters by SM/EPA Methods

% Solids	90.4		0.100	%	02/25/20 17:00	SM 2540 G-11	EEV	
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Physical Parameters by APHA/ASTM/EPA Methods

Ignitability - Burn Rate	<0.100		0.100	mm/sec	02/22/20 13:45	EPA 1030	mmd	G6
Free Liquid	<0.100		0.100	ml/l/5 min	02/25/20 16:00	EPA 9095B	vdg	

Polychlorinated Biphenyls by EPA Extraction Method 3541

PCB-1016	<0.011		0.011	mg/kg dry	02/26/20 11:31	EPA 8082A	cdb	
PCB-1221	<0.011		0.011	mg/kg dry	02/26/20 11:31	EPA 8082A	cdb	
PCB-1232	<0.011		0.011	mg/kg dry	02/26/20 11:31	EPA 8082A	cdb	
PCB-1242	<0.011		0.011	mg/kg dry	02/26/20 11:31	EPA 8082A	cdb	
PCB-1248	<0.011		0.011	mg/kg dry	02/26/20 11:31	EPA 8082A	cdb	
PCB-1254	<0.011		0.011	mg/kg dry	02/26/20 11:31	EPA 8082A	cdb	
PCB-1260	<0.011		0.011	mg/kg dry	02/26/20 11:31	EPA 8082A	cdb	
Surrogate: Tetrachloro-meta-xylene	48.8 %		26.5-135		02/26/20 11:31	EPA 8082A	cdb	
Surrogate: Decachlorobiphenyl	95.9 %		32.8-122		02/26/20 11:31	EPA 8082A	cdb	

Reactive Cyanide by Preparation Method EPA 7.3.3.2

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NEFCO

Project: GENERAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Client Sample ID: SOLIDS/POST SCREENER

Date/Time Sampled: 02/20/20 10:00

Laboratory Sample ID: 0B21122-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

Reactive Cyanide by Preparation Method EPA 7.3.3.2

Reactive Cyanide	<0.982	0.982	mg/kg dry	03/04/20 08:50	EPA 9014	cjw
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Reactive Sulfide by Preparation Method EPA 7.3.4.2

Reactive Sulfide	<21.5	21.5	mg/kg dry	03/02/20 14:57	EPA 9034	cjw
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TCLP Extraction by EPA 1311

# pH @ 21°C	5.94		pH Units	02/25/20 10:11	EPA 1311	v dg
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TCLP Herbicides by EPA Methods 1311/8151A

2,4-D	<1.00	1.00	ug/l	03/04/20 17:02	EPA 8151A	cdb	D
2,4,5-TP (Silvex)	<1.00	1.00	ug/l	03/04/20 17:02	EPA 8151A	cdb	
Surrogate: 2,4-DCAA	32.3 %	57.3-151		03/04/20 17:02	EPA 8151A	cdb	P

TCLP Metals extracted by EPA 1311

Silver	<0.0200	0.0200	mg/l	02/27/20 10:12	EPA 6010B/2.0	seg
Arsenic	<0.0400	0.0400	mg/l	02/27/20 10:12	EPA 6010B/2.0	seg
Barium	<0.500	0.500	mg/l	02/27/20 10:10	EPA 6010B/2.0	seg
Cadmium	<0.0200	0.0200	mg/l	02/27/20 10:12	EPA 6010B/2.0	seg
Chromium	<0.0250	0.0250	mg/l	02/27/20 10:12	EPA 6010B/2.0	seg

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NEFCO

Project: GENERAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Client Sample ID: SOLIDS/POST SCREENER

Date/Time Sampled: 02/20/20 10:00

Laboratory Sample ID: 0B21122-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

TCLP Metals extracted by EPA 1311

Mercury	<0.00200	0.00200	mg/l	02/27/20 22:25	EPA 7471B	cam	
Lead	<0.0400	0.0400	mg/l	02/27/20 10:12	EPA 6010B/2.0	seg	
Selenium	<0.100	0.100	mg/l	02/27/20 10:12	EPA 6010B/2.0	seg	

TCLP Pesticides by EPA Method 1311/Extraction Method 3510C/

gamma-BHC (Lindane)	<0.100	0.100	ug/l	02/27/20 19:02	EPA 8081B	cdb	D
Chlordane (tech)	<5.00	5.00	ug/l	02/27/20 19:02	EPA 8081B	cdb	
Endrin	<0.100	0.100	ug/l	02/27/20 19:02	EPA 8081B	cdb	D
Heptachlor	<0.100	0.100	ug/l	02/27/20 19:02	EPA 8081B	cdb	D
Heptachlor epoxide	<0.100	0.100	ug/l	02/27/20 19:02	EPA 8081B	cdb	D
Methoxychlor	<0.100	0.100	ug/l	02/27/20 19:02	EPA 8081B	cdb	D, F
Toxaphene	<5.00	5.00	ug/l	02/27/20 19:02	EPA 8081B	cdb	D
Surrogate: Tetrachloro-meta-xylene	79.2 %	24-119		02/27/20 19:02	EPA 8081B	cdb	
Surrogate: Decachlorobiphenyl	75.9 %	13.2-124		02/27/20 19:02	EPA 8081B	cdb	

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

Pyridine	<100	100	ug/l	02/26/20 13:14	EPA 8270D	cdb	
1,4-Dichlorobenzene	<50.0	50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
2,4-Dinitrotoluene	<50.0	50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	

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NEFCO

Project: GENERAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Client Sample ID: SOLIDS/POST SCREENER

Date/Time Sampled: 02/20/20 10:00

Laboratory Sample ID: 0B21122-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

TCLP Semivolatile Organic Compounds by EPA 1311/Extraction Method 3510C

3 & 4-Methylphenol	940		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
Hexachlorobenzene	<50.0		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
Hexachlorobutadiene	<50.0		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
Hexachloroethane	<50.0		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
2-Methylphenol	<50.0		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
Nitrobenzene	<50.0		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
Pentachlorophenol	<250		250	ug/l	02/26/20 13:14	EPA 8270D	cdb	
2,4,5-Trichlorophenol	<50.0		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
2,4,6-Trichlorophenol	<50.0		50.0	ug/l	02/26/20 13:14	EPA 8270D	cdb	
Surrogate: 2-Fluorophenol	60.8 %		20.6-73.2		02/26/20 13:14	EPA 8270D	cdb	
Surrogate: Phenol-d6	42.5 %		15.4-49.6		02/26/20 13:14	EPA 8270D	cdb	
Surrogate: Nitrobenzene-d5	85.2 %		31.9-118		02/26/20 13:14	EPA 8270D	cdb	
Surrogate: 2-Fluorobiphenyl	81.3 %		31.8-136		02/26/20 13:14	EPA 8270D	cdb	
Surrogate: 2,4,6-Tribromophenol	98.7 %		49.3-148		02/26/20 13:14	EPA 8270D	cdb	
Surrogate: Terphenyl-d14	93.4 %		10-135		02/26/20 13:14	EPA 8270D	cdb	

TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Benzene	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
2-Butanone	<500		500	ug/l	02/26/20 17:45	EPA 8260B	JMG	
Carbon tetrachloride	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	

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NEFCO

Project: GENERAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Client Sample ID: SOLIDS/POST SCREENER

Date/Time Sampled: 02/20/20 10:00

Laboratory Sample ID: 0B21122-01 (Solid/Grab)

Analyte	Result	MDL	RL	Units	Date / Time Analyzed	Analytical Method	* Analyst	Note
---------	--------	-----	----	-------	----------------------	-------------------	-----------	------

TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Chlorobenzene	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
Chloroform	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
1,2-Dichloroethane	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
1,1-Dichloroethene	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
Tetrachloroethene	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
Trichloroethene	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
Vinyl chloride	<50.0		50.0	ug/l	02/26/20 17:45	EPA 8260B	JMG	
Surrogate: 4-Bromofluorobenzene		104 %	70-130		02/26/20 17:45	EPA 8260B	JMG	
Surrogate: 1,2-Dichloroethane-d4		98.2 %	70-130		02/26/20 17:45	EPA 8260B	JMG	
Surrogate: Fluorobenzene		100 %	70-130		02/26/20 17:45	EPA 8260B	JMG	

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Cumberland MD, 21502

Collector: CLIENT

03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Notes

- D A Continuing Calibration Verification (CCV) analyzed with the analytical batch recovered above the acceptance range for the noted analyte.
- F The Laboratory Control Sample (LCS) analyzed with this preparation batch recovered above the acceptance range for the noted analyte.
- G6 According to EPA Method 1030/40 CFR 261.21, this sample did not have a burning rate greater than 2.2mm/second and is therefore not considered to have a positive result for ignitability.
- P The noted surrogate value was below the acceptance range.



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03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Definitions:

If surrogate values are not within the indicated range, then the results are considered to be estimated.

Reporting limits are adjusted accordingly when samples are analyzed at a dilution due to the matrix.

MBAS, calculated as LAS, mol wt 348

If the solid sample weight for VOC analysis does not fall within the 3.5-6.5 gram range, the results are considered estimated values.

Unless otherwise noted, all results for solids are reported on a dry weight basis.

Samples collected by Fairway Laboratories' personnel are done so in accordance with Standard Operating Procedures established by Fairway Laboratories.

The following analyses are to be performed immediately upon sampling: pH, sulfite, chlorine residual, dissolved oxygen, filtration for ortho phosphorus, and ferrous iron. The date and time reported reflect the time the samples were analyzed at the laboratory; and should be considered as analyzed outside the EPA holding time.

^ The following analytes are to be filtered immediately upon sampling: Hexavalent Chromium. Filtration through a 0.45 micron filter within 15 minutes of sampling is required for compliance with the Clean Water Act (CWA) for reporting of hexavalent chromium to prevent interconversion of chromium species.

* **Analysis location indicator:**
D: Indicates analysis performed by Fairway Laboratories, Inc., 110 McCracken Run Rd., DuBois, PA 15801. PA DEP Chapter 252 certification: PA 33-00258.
G: Indicates analysis performed by Fairway Laboratories, Inc., 4727 Route 30 Ste 204, Greensburg, PA 15601. PA DEP Chapter 252 certification: PA 65-00392.
P: Indicates analysis performed by Fairway Laboratories, Inc., 89 Kristi Rd., Pennsdale, PA 17756. PA DEP Chapter 252 certification: PA 41-04684.
W: Indicates analysis performed by Fairway Laboratories, Inc., 1950 Golden Mile Rd., Wysox, PA 18854. NELAP certification: PA 08-05622.

< Represents "less than" - indicates that the result was less than the RL, or the MDL if indicated for the parameter.

MDL Method Detection Limit - is the lowest or minimum level that provides 99% confidence level that the analyte is detected. Any reported result values that are less than the RL are considered estimated values. If Radiological results are reported, the MDC - Minimum Detectable Concentration is shown in the MDL column.

RL Reporting Limit - is the lowest or minimum level at which the analyte can be quantified.

[CALC] Indicates a calculated result. Calculations use results from other analyses performed under accredited methods.



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NEFCO

Project: GENERAL

400 East Offutt St.

Project Number: [none]

Reported:

Cumberland MD, 21502

Collector: CLIENT

03/09/20 17:12

Project Manager: Rick Twigg

Number of Containers: 1

Terms & Conditions

Services provided by Fairway Laboratories Inc. are limited to the terms and conditions stated herein, unless otherwise agreed to in a formal contract.

CHAIN OF CUSTODY Fairway Laboratories Inc. ("Fairway," "us" or "we") will initiate a chain-of-custody/request for analysis upon sample receipt unless the client includes a completed form with the received sample(s). Upon request, Fairway will provide chain-of-custody forms for use.

CONFIDENTIALITY Fairway maintains confidentiality in all of our client interactions. The client's consent will be required before releasing information about the services provided.

CONTRACTS All contracts are subject to review and approval by Fairway's legal council. Each contract must be signed by a corporate officer.

PAYMENT/BILLING Unless otherwise set forth in a signed contract or purchase order, terms of payment are "NET 30 Days." The time allowed for payment shall begin based on the invoice date. A 1.5% per month service charge may be added to all unpaid balances beyond the initial 30 days. In its sole discretion, Fairway reserves the right to request payment before services and hold sample results for payment of due balances. We will not bill a third party without prior agreement among all parties acknowledging and accepting responsibility for payment.

SAMPLE COLLECTION AND SUBMISSION Clients not requesting collection services from Fairway are responsible for proper collection, preservation, packaging, and delivery of samples to the laboratory in accordance with current law and commercial practice. Fairway shall have no responsibility for sample integrity prior to the receipt of the sample(s) and/or for any inaccuracy in test or analyses results as a result of the failure of the client or any third party to maintain the integrity of samples prior to delivery to Fairway. All samples submitted must be accompanied by a completed chain of custody or similar document clearly noting the requested analyses, dates/time sampled, client contact information, and trail of custody. Samples received at the laboratory after business hours are verified on the next business day. Discrepancies are documented on the Receiving Document.

SUBCONTRACTING Some analyses may require subcontracting to another laboratory. Unless the client indicates otherwise, this decision will be made by Fairway. Subcontracted work will be identified on the final report in accordance with NELAC requirements.

RETURN OF RESULTS Fairway routinely provides faxed or verbal results within 10 working days of receipt of sample(s) and a hard copy of the data results is routinely received via US Postal Service within 15 working days. At the request of the client, Fairway may offer expedited return of sample results. Surcharges may apply to rush requests. All rush requests must be pre-approved by Fairway. We reserve the right to charge an archive retrieval fee for results older than one (1) year from the date of the request. All records will be maintained by Fairway for 5 years, after which, they will be destroyed.

SAMPLE DISPOSAL Fairway will maintain samples for four (4) weeks after the sample receipt date. Fairway will dispose of samples which are not and/or do not contain hazardous wastes (as such term is defined by applicable federal or state law), unless prior arrangements have been made for long-term storage. Fairway reserves the right to charge a disposal fee for the proper disposal of samples found or suspected to contain hazardous waste. A return shipping charge will be invoiced for samples returned to the client at their request.

HAZARD COMMUNICATION The client has the responsibility to inform the laboratory of any hazardous characteristics known or suspected about the sample, and to provide information on hazard prevention and personal protection as necessary or otherwise required by applicable law.

WARRANTY AND LIMITATION OF LIABILITY For services rendered, Fairway warrants that it will apply its best scientific knowledge and judgment and to employ its best level of effort consistent with professional standards within the environmental testing industry in performing the analytical services requested by its clients. We disclaim any other warranties, expressed or implied by law. Fairway does not accept any legal responsibility for the purposes for which client uses the test results.

LITIGATION All costs associated with compliance to any subpoena for documents, for testimony in a court of law, or for any other purpose relating to work performed by Fairway Laboratories, Inc. shall be invoiced by Fairway and paid by client. These costs shall include, but are not limited to, hourly charges for the persons involved, travel, mileage, and accommodations and for any and all other expenses associated with said litigation.

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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Please print. See back of COC for instructions/terms and conditions.

2019 9th Ave.
P.O. Box 1925
Altoona, PA 16602
Phone: (814) 946-4306
Fax: (814) 946-8791

FAIRWAY LABORATORIES

Environmental Laboratory

89 Kristi Rd
Pennsdale, PA 17756
Phone: (570) 494-6380

OB 211221
COC #

Page 1 of 2

Client Name: NEFCO Cumberland Address: 400 E Offutt St Cumberland, MD 21502 Contact: Rick Twigg Phone #: 301-722-7380 Fax #: 301-722-2381 Project Name: Quote/PO #:			Received on ice? Y N Sample Temp:		Reportable to PADEP? Yes <input type="checkbox"/> PWSID #		Analyses Requested						LAB USE ONLY FedEx <input type="checkbox"/> USPS <input type="checkbox"/> UPS <input type="checkbox"/> Other <input type="checkbox"/> Tracking #			
TAT: Normal <input type="checkbox"/> Rush <input type="checkbox"/> Rush TAT subject to pre-approval and surcharge. Date Required: / /			GRAB Composite		Composite Start GRAB -or- Composite End		Matrix Solid Water Other		# of Containers		See Attached					
Sample Description/Location			Start Date Start Time End Date End Time		Solid Water Other		# of Containers		Bottle Type/Comments							
Solids/Post SCREENER			2/20/20 10:00 2/20/20 10:00		✓		1		1.2" 1 Litre Amber TCLP/PCB per PA Standards							
Sampled by: Rick Twigg Relinquished by: Paul Relinquished by: Relinquished by:			Date Time 2/20/20 10:00 Date Time 2/20/20 1700 Date Time Date Time		Received by: Paul Received by: [Signature] Received by: Received by:		Date Time 2/20/20 1030 Date Time 2/20/20 1700 Date Time Date Time		Remarks							

By relinquishing my sample to Fairway Laboratories, Inc., I hereby agree to the terms and conditions printed on the reverse.

White Original - FLI File Canary - FLI Copy Pink - Customer Receipt Copy

Chain of Custody Receiving Document

Receiver: A1Page 2 of 2

F2

Date/Time of this check: 2/20 1359 Client: WEFCO Lab # 0B21122Received on ICE? Y ☐ * Sample Temperature when delivered to the Lab: 0.2 °C Acceptable? Y ☐ * or In cool down process? ☐ *

(Not applicable for WV compliance)

Custody Seals? NO Y Intact? NA YMorning Temperature Verification <6°C (if applicable): ☐COC/Labels on bottles agree? Y ☐ * Correct containers for all the analysis requested? Y ☐ * Matrix: Solid

COC #	Number and Type of BOTTLES										Comments
	Poly Non-Pres.	Poly H2SO4	Poly HNO3	Amber H2SO4	Amber Non-Pres.	Poly NaOH	VOCS (Head space?)	Other <input type="checkbox"/> *	Properly Preserved <input type="checkbox"/> *	Bacti	
<u>Solids</u>					<u>1</u>				<u>NA</u>		<input type="checkbox"/> * Internal notification completed for deviations.

* DEVIATION PRESENT:

- ☒ No Ice ()
☒ Not at Proper Temperature ()
☒ Wrong Container ()
☒ Missing Information: ()

CLIENT CALLED:

YES ()

By Whom:

Date: _____

CLIENT RESPONSE:

- Proceed with analysis; qualify data ()
 Will Resample ()
 Provided Information ()
 No Response; Proceed and qualified ()

Client Contact: _____ Date: _____

* Comments: _____

TCIP/PCB

OB 21122 #3

Comments/Notes	
<input type="checkbox"/>	Corrosivity/pH
<input type="checkbox"/>	Flashpoint
<input type="checkbox"/>	Paint Filter
<input type="checkbox"/>	Reactive Cyanide
<input type="checkbox"/>	Reactive Sulfide
<input type="checkbox"/>	TCLP Herbicides
<input type="checkbox"/>	TCLP Metals - (RCRA-8)
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	TCLP Semi-Volatiles
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	Total PCBs

April 14, 2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

Subject: Monthly Truck Composite March 2020
Monthly Truck Comp 3/2020

Dear Ms. Washington :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 03/30/2020 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 64456 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.



Brighton Analytical LLC
2105 Pless Drive
Brighton, Michigan 48114
Phone: (810)229-7575 (810)229-8650
e-mail: bai-brighton@sbcglobal.net
EGLE Certified #9404
NELAC Accredited #176507

Sample Date/Time: 3/29/2020 12
Submit Date/Time: 3/30/2020 12
Report Date: 4/14/2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

BA Project # **64456** Project Name: **Monthly Truck Composite March 2020**
BA Sample ID **CM03738** Project Number: **Monthly Truck Comp 3/2020**
Sample ID: **Monthly Truck Comp March 2020**

Analyte Name	Result	Units	DL	NEFCO LIMIT	Method Reference	Analysis Date	Analyst
Total Metal Analysis							
Calcium Carbonate (Calc)	4.6	%	0.001		SW846 6020A	04/02/2020	LT
Total Aluminum	4100	mg/Kg	100		SW846 6010B	03/31/2020	LT
Total Arsenic	5.1	mg/Kg	0.1	41	SW846 6020A	04/03/2020	LT
Total Cadmium	1.4	mg/Kg	0.05	39	SW846 6020A	04/03/2020	LT
Total Calcium	18000	mg/Kg	5.0		SW846 6020A	04/03/2020	LT
Total Chromium	51	mg/Kg	0.5		SW846 6020A	04/03/2020	LT
Total Cobalt	15	mg/Kg	0.5		SW846 6020A	04/03/2020	LT
Total Copper	200	mg/Kg	1.0	1500	SW846 6020A	04/03/2020	LT
Total Iron	19000	mg/Kg	2.0		SW846 6020A	04/03/2020	LT
Total Lead	34	mg/Kg	10	300	SW846 6020A	04/03/2020	LT
Total Magnesium	4200	mg/Kg	3.0		SW846 6020A	04/03/2020	LT
Total Manganese	140	mg/Kg	1.0		SW846 6020A	04/03/2020	LT
Total Mercury	0.21	mg/Kg	0.05	17	SW846 7471A	03/31/2020	LS
Total Molybdenum	6.4	mg/Kg	0.1		SW846 6020A	04/03/2020	LT
Total Nickel	32	mg/Kg	1.0	420	SW846 6020A	04/03/2020	LT
Total Potassium	2400	mg/Kg	2.0		SW846 6020A	04/03/2020	LT
Total Selenium	4.2	mg/Kg	0.2	100	SW846 6020A	04/03/2020	LT
Total Sodium	830	mg/Kg	10		SW846 6020A	04/03/2020	LT
Total Zinc	700	mg/Kg	1.0	2800	SW846 6020A	04/03/2020	LT
Metal Soil (digestion)	Digested				3050	03/31/2020	EV
Mercury (digestion)	Digested				7470/7471	03/31/2020	LS
Inorganic Analysis							
Ammonia as Nitrogen	0.048	%	0.0001		EPA 350.1	04/13/2020	RM
Ammonia as Nitrogen	480	mg/Kg	1.0		EPA 350.1	04/13/2020	RM
Chloride (ASTM Leach)	1100	mg/Kg	20		SW846 9056	04/01/2020	RM
Nitrite (ASTM Leach)	2.3	mg/Kg	1.0		SW846 9056	04/01/2020	RM
Nitrogen (Kjeldahl)	4.4	%	0.0001		EPA 351.2	04/02/2020	RM
Nitrogen (Kjeldahl)	44000	mg/Kg	1.0		EPA 351.2	04/02/2020	RM
pH (Soil and Waste)	5.8	S.I.			SW846 9045C	04/03/2020	LS
Phosphate	4.2	%	0.00024		EPA 365.3	04/06/2020	MB
Phosphate P205	6.3	%	0.00024		EPA 365.3	04/06/2020	MB
Phosphate P205	63000	mg/Kg	2.4		EPA 365.3	04/06/2020	MB
Phosphate ppm	42000	mg/Kg	2.4		EPA 365.3	04/06/2020	MB
Phosphorus P205 (total)	32000	mg/Kg	0.2		EPA 365.3	04/06/2020	MB



Brighton Analytical LLC
2105 Pless Drive
Brighton, Michigan 48114
Phone: (810)229-7575 (810)229-8650
e-mail: bai-brighton@sbcglobal.net
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NELAC Accredited #176507

Sample Date/Time: 3/29/2020 12
Submit Date/Time: 3/30/2020 12
Report Date: 4/14/2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

BA Project # **64456** Project Name: **Monthly Truck Composite March 2020**
BA Sample ID **CM03738** Project Number: **Monthly Truck Comp 3/2020**
Sample ID: **Monthly Truck Comp March 2020**

Analyte Name	Result	Units	DL	NEFCO LIMIT	Method Reference	Analysis Date	Analyst
Inorganic Analysis							
Phosphorus P205 (total)	3.2	%	0.00002		EPA 365.3	04/06/2020	MB
Phosphorus (total)	1.4	%	0.00002		EPA 365.3	04/06/2020	MB
Phosphorus (total)	14000	mg/Kg	0.2		EPA 365.3	04/06/2020	MB
Sulfur	3200	mg/Kg	50		5050/9056	03/30/2020	MB
Total Organic Nitrogen	4.4	%	0.0001			04/13/2020	RM
Total Organic Nitrogen	44000	mg/Kg	1.0			04/13/2020	RM
Total Solids	960000000	ug/Kg	10000		EPA 160.3	03/30/2020	LS
Total Volatile Solids	66	%	0.001		SM2540G	03/30/2020	LS
Parr Bomb Prep	Prepped				ASTM D5050	03/30/2020	MB
PCB Analysis							
ARO 1260	820	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1262	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1254	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1248	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1242	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1232	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1221	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1016	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
ARO 1268	Not detected	ug/Kg	330		SW846 8082A	04/02/2020	BY
Total PCB	820	ug/Kg	330		SW846 8082A	04/02/2020	BY
PCB soil extraction	Extracted				3510C/3545	03/30/2020	MB
%Solid	96	%				03/30/2020	LS

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

Elevated metals dl due to sample matrix.

Released by

Date

4/14/2020

Brighton Analytical, L.L.C.
email: bai-brighton@sbcglobal.net
2105 Pless Drive Phone: 810-229-7575
Brighton, MI 48114 FAX: 810-229-8650

PROJECT NAME: Monthly Truck Composite March 2020

PROJECT #: Monthly Truck Composite March 2020

PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)

BA PROJECT #: 64456

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H₂O
O = Oil
P = Wipes
A = Air (Tedlar Bag)
F = Filter
T = Tube M = Misc.

Analysis Requested/Method

COMPANY/MAILING ADDRESS:
9125 W. Jefferson
Detroit, MI 48033
ATTN: Sherika Washington
PHONE: 313 551-5278
FAX OR EMAIL: swashington@nefcobiosolids.com

PAGE 1 OF 1

Sample Collected By: SW

REQUESTED TURNAROUND: (circle one)
Rush: 1-3 business days (verify with lab & specify date needed)
1 Day = 2.5X Cost 2 Day = 2X Cost 3 Day = 1.5X Cost
Standard: 5 business days

Brighton ID #	Sample Description	If RUSH, approved by:		Container/Quantity									
		Date	Time	Sample Coll.	VOA'S (PRES) Y N N/A	HDPE UNPRESERVED	HDPE HNO ₃	HDPE H ₂ SO ₄	HDPE NaOH	ANBER Preserved?	GLASS, NO PRESERVATIVE	STERILIZED BACTERIA	MEOH Preserved Y N
1) 1	Monthly Truck Composite March 2020	3-1-2020	11:00										
2)													
3)													
4)													
5)													
6)													
7)													
8)													
9)													
10)													

See Sheet

Sample Matrix

Drinking H₂O: FAX TO LCHD yes no
Chlorinated Water Supply? yes no
AMT: _____
MCL failure: yes no
Client notified (date/time/initials):

BILLING ADDRESS (IF REQUIRED):

NO INVOICE

Headspace/bubbles in VOA's? yes no n/a
Sample containers and COC match? yes no

pHs verified in login? yes no
Temperature of samples °C:
Samples received within hold time? yes no

Special Instructions:

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	[Signature]	[Signature]	3/2/20	9:00	3				
2	[Signature]	[Signature]	3/2/20	1:00	4				

The following are for sample 1

Solids, Total (TS) [n]	SM 2540 B
Solids, Volatile	EPA 160.4
pH (Hydrogen Ion)	SM 4500-H+ B
Total Kjeldahl Nitrogen, as N (TKN)	SM4500-Norg B
Ammonia Nitrogen, as N (NH3-N)	SM 4500-NH3 B+G
Nitrite Nitrogen, as N (NO2-N)	EPA 300.0
Organic Nitrogen	Calculation
Phosphorous, Total	EPA 365.3
Total Phosphorous as P205	EPA 365.3
Avail Phosphate as P205	EPA 365.3
Potassium, Total for Water and Waster Water by ICP-MS	EPA 200.8
Chloride	EPA 300.0
Total Sulfur	EPA 9056A
Hardness, Total as CaCO3	SM 2340 C
Calcium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Iron, Total for Water and Waste Water by ICP- MS	EPA 200.8
Aluminum, Total for Water and Waste Water by ICP-MS	EPA 200.8
Arsenic, Total for Water and Waste Water by ICP-MS	EPA 200.8
Cadium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Chromium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Cobalt, Total for Water and Waste Water by ICP- MS	EPA 200.8
Copper, Total for Water and Waste Water by ICP-MS	EPA 200.8
Lead, Total for Water and Waste Water by ICP- MS	EPA 200.8
Magnesium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Manganese, Total for Water and Waste Water by ICP-MS	EPA 200.8
Mercury, Total	EPA 245.1
Molybdenum, Total for Water and Waste Water by ICP-MS	EPA 200.8
Nickel, Total for Water and Waste Water by ICP- MS	EPA 200.8
Selenium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Sodium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Zinc, Total for Water and Waste Water by ICP- MS	EPA 200.8
Polychlorinated Biphenyls, as Arochlors (PCBs)	EPA 608

The following are for Sample 2

Coliform, Fecal	SM 9221 E
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BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY
CONTROL

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: RM

Parameter: TKN

Analysis Date: 4/2/20

Method Reference: 351.2

SPIKE - ACCURACY					
Laboratory Identification	Spike Conc. (µg/L)	Background (µg/L)	Percent Recoveries	Acceptable Range (%)	Method Blank Concentration
3662 MS/MSD	1000	4,884	91 / 67	90 - 110%	<100
SPIKE - PRECISION					
Laboratory Identification	Observed A (µg/L)	Observed B (µg/L)	RPD	Acceptable Range	
3662 MS/MSD	5798	5556	4.26	≤ 20%	
	Standard ID #	%Recovery			
Independent Secondary Reference Material:	WP 294	98%			
Method Standard (Laboratory Control Spike):					

COMMENTS: _____

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: RM

Parameter: Ammonia Soils

Analysis Date: 4/13/20

Method Reference: 350.1

SPIKE - ACCURACY

Laboratory Identification	Spike Conc. (µg/L)	Background (µg/L)	Percent Recoveries	Acceptable Range (%)	Method Blank Concentration
3738 MS/MSD	500	1,151	83 / 101	80 - 120	<1000 ug/kg

SPIKE - PRECISION

Laboratory Identification	Observed A (µg/L)	Observed B (µg/L)	RPD	Acceptable Range	
3738 MS/MSD	1567	1654	5.4	≤ 20%	

MISCELLANEOUS

	Standard ID #	%Recovery	
Independent Secondary Reference Material:	WP 270	99%	

COMMENTS: _____

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: MB

Parameter: PHOS

Analysis Date: 4/6/2020

Method Reference: 365.2

SPIKE - ACCURACY

Laboratory Identification	Spike Conc. (µg/L)	Background (µg/L)	Percent Recoveries	Acceptable Range (%)	Method Blank Concentration
WP 294	6810	<200	102/100	90-110	<10

SPIKE - PRECISION

Laboratory Identification	Observed A (µg/L)	Observed B (µg/L)	RPD	Acceptable Range	
WP 294	6940	6830	1.60	≤ 20%	

MISCELLANEOUS

	Standard ID #	%Recovery	
Independent Secondary Reference Material:	WP 294	102%	
Method Standard (Laboratory Control Spike):			

COMMENTS: _____

ICP-MS METHOD 6020

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 04/02/2020

Standard ID: 021020 S

Batch: 3/31/2020 S1

Matrix Spike Lab ID: CM03734

Matrix: Soil

Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug/Kg)	Matrix Spike Dup (ug/Kg)	RPD (%)	Spk Conc (ug/Kg)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/Kg)	Method Blk (ug/Kg)	LCS-Method STD (%)	Ind. Std SPEX 1&3 (%)
Beryllium	87514	89357	2.1	100000	87.0	88.8	550	<100	90.8	91.8
Sodium	898937	925719	2.9	1000000	81.3	84.0	85936	<10000	100.5	92.3
Magnesium	3797586	3844866	1.2	1000000	69.6	74.3	3101790	<1000	93.1	90.9
Potassium	1631986	1634948	0.2	1000000	80.0	80.3	831856	<2000	93.0	90.5
Calcium	3482303	3412416	2.0	1000000	157.6	150.6	1906448	<5000	100.0	91.1
Chromium	99278	101360	2.1	100000	76.5	78.6	22762	<500	93.1	91.1
Manganese	667954	674420	1.0	100000	72.9	79.4	595053	<1000	92.7	90.4
Iron	33776799	33090874	2.1	1000000	0.0	0.0	34269230	<2000	92.6	90.6
Cobalt	86854	87935	1.2	100000	78.6	79.7	8252	<500	94.5	90.7
Nickel	97892	99814	1.9	100000	77.1	79.0	20798	<1000	94.4	91.5
Copper	83101	84873	2.1	100000	77.9	79.6	5230	<1000	95.9	95.1
Zinc	140131	143300	2.2	100000	94.6	97.8	45515	<1000	94.0	90.3
Arsenic	78252	78806	0.7	100000	65.8	66.4	12422	<100	92.3	91.2
Selenium	60701	61142	0.7	100000	60.6	61.0	95	<200	91.6	91.5
Molybdenum	70758	73050	3.2	100000	69.8	72.0	1002	<100	103.3	100.5
Silver	888	891	0.3	1000	83.7	84.0	51	<100	90.1	91.8
Cadmium	86353	86330	0.0	100000	86.3	86.3	33	<50	91.7	90.1
Barium	316060	323644	2.4	100000	73.4	81.0	242614	<1000	94.5	92.4
Lead	123871	124189	0.3	100000	97.9	98.2	25945	<1000	92.0	91.8

* Matrix spike precision range +/- 20% RPD

** Matrix spike accuracy range +/- 30% recovery

*** LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments: Mg, Ca, Fe, As Se and Mo out of range due to sample matrix

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: LS

Parameter: pH

Analysis Date: 4/3/2020

Method Reference: SM4500H+B/9040/9045

BATCH 1

SPIKE - ACCURACY

Laboratory ID	True Value	Observed (°F)	DIFFERENCE	Acceptable Range	
VWR 6.00	6.00	6.01	0.01	0.05	
Laboratory ID	Observed A	Observed B	DIFFERENCE	Acceptable Range	
CM03744	8.11	8.10	0.01	0.05	

COMMENTS: _____

Representative Batch Precision And Accuracy Quality Control Summary

Ion Chromatograph EPA Method 300.0

Date: 4/1/20

Reviewed by: _____

Analyst: RM

ERA Q038

ERA # : WP 294Exp. Date: Oct-22

Analyte	Sample Conc	LCS Value	LCS Conc.	% Rec. LCS	ERA Conc.	ERA TRUE Value	%Rec ERA	Control limits	Units
Fluoride	<100	5,000	5,009	100	2,524	2,640	96	90-110%	ug/L
Chloride	<1000	50,000	49,591	99	63,970	66,000	97	90-110%	ug/L
Nitrite	<10	1,000	982	98				90-110%	ug/L
Nitrate	<10	1,000	979	98	6,277	6,240	101	90-110%	ug/L
Sulfate	<1000	50,000	49,355	99	26,956	28,200	96	90-110%	ug/L

Sample ID# 3768

Analyte	Sample Conc	Spike Value	MS Conc.	MSD Conc.	% Rec MS	% Rec MSD	RPD	Control limits	Units
Fluoride	122	5,000	4,979	4,868	97	95	2.3	80-120%	ug/L
Chloride	350	50,000	49,648	48,465	99	96	2.4	80-120%	ug/L
Nitrite	0	1,000	963	941	96	94	2.3	80-120%	ug/L
Nitrate	0	1,000	940	919	94	92	2.2	80-120%	ug/L
Sulfate	4,822	50,000	53,514	52,415	97	95	2.1	80-120%	ug/L

.. 3985

Analyte	Sample Conc	Spike Value	MS Conc.	MSD Conc.	% Rec MS	% Rec MSD	RPD	Control limits	Units
Fluoride	185	5,000	5,123	4,923	99	95	4.0	80-120%	ug/L
Chloride	80,658	50,000	129,223	127,231	97	93	1.6	80-120%	ug/L
Nitrite	0	1,000	963	924	96	92	4.1	80-120%	ug/L
Nitrate	100	1,000	1,066	1,027	97	93	3.7	80-120%	ug/L
Sulfate	27,499	50,000	76,714	74,747	98	94	2.6	80-120%	ug/L

Sample ID# _____

Analyte	Sample Conc	Spike Value	MS Conc.	MSD Conc.	% Rec MS	% Rec MSD	RPD	Control limits	Units
Fluoride		5,000						80-120%	ug/L
Chloride		50,000						80-120%	ug/L
Nitrite		1,000						80-120%	ug/L
Nitrate		1,000						80-120%	ug/L
Sulfate		50,000						80-120%	ug/L

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: LS / MH

Parameter: Mercury

Analysis Date: 03/31/20

Method Reference: 245.1/7470/7471

Matrix: Soil

Batch: S2

SPIKE - ACCURACY					
Laboratory ID	Spike Concentration (ug/Kg)	Background (ug/Kg)	Recoveries (%)	Acceptable Range (%)	Method Blank Concentration (ug/Kg)
M. STD 1&2	100	0.0	109 / 107	70 - 130	<50
SPIKE - ACCURACY					
Laboratory ID	Observed A (ug/Kg)	Observed B (ug/Kg)	RPD (%)	Acceptable Range (%)	
M. STD 1&2	109	107	1.5	0 - 20	
SPIKE - ACCURACY					
		Standard ID #	Recovery (%)	Acceptable Range (%)	
Independent Secondary Reference Material:		SPEX 033120	92	90 - 110	
Method Standard (Laboratory Control Spike)		Hg 033120	109	80 - 120	

COMMENTS: _____

ICP-OES

METHOD 200.7/6010

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 03/31/2020

Standard ID: 021020 S

Batch: 3/31/2020 S1

Matrix Spike Lab ID: M. STD 1&2

Matrix: Soil

Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug)	Matrix Spike Dup (ug)	RPD (%)	Spk Conc (ug)	MS Recovery (%)	MSD Recovery (%)	Blank Conc (ug)	Method Blk (ug)	LCS-Method STD (%)	Secondary Source ID (%)
Aluminum	965	971	0.6	1000	96.0	96.6	5.3	<100	96.0	91.4

* Matrix spike precision range +/- 20% RPD

** Matrix spike accuracy range +/- 30% recovery

*** LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments:

March 31, 2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

Subject: Monthly Fecal Grab March 2020
Monthly Fecal Grab 3/2020

Dear Ms. Washington :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 03/30/2020 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 64458 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.



Brighton Analytical LLC
2105 Pless Drive
Brighton, Michigan 48114
Phone: (810)229-7575 (810)229-8650
e-mail: bai-brighton@sbcglobal.net
EGLE Certified #9404
NELAC Accredited #176507

Sample Date: 03/30/2020
Submit Date: 03/30/2020
Report Date: 03/31/2020

To: NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

BA Report Number: **64458**

Project Name: **Monthly Fecal Grab March 2020**

BA Sample ID: **CM03740**

Project Number: **Monthly Fecal Grab 3/2020**

Sample ID: **Monthly Fecal Grab March 2020**

Parameters	Result	Units	DL	Method Reference	Analyst	Analysis Date
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Microbiological Analysis

Fecal coliform	0	MPN/Gm	1	SM9222 MOD	WT	03/30/2020
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

Released by

Date

3/31/2020

May 20, 2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

Subject: Monthly Truck Composite April 2020
Monthly Truck Comp 4/20

Dear Ms. Washington :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 04/29/2020 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 64755 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.



Brighton Analytical LLC
2105 Pless Drive
Brighton, Michigan 48114
Phone: (810)229-7575 (810)229-8650
e-mail: bai-brighton@sbcglobal.net
EGLE Certified #9404
NELAC Accredited #176507

Sample Date/Time: 4/28/2020 12
Submit Date/Time: 4/29/2020 12
Report Date: 5/20/2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

BA Project # **64755** Project Name: **Monthly Truck Composite April 2020**
BA Sample ID **CM04648** Project Number: **Monthly Truck Comp 4/20**
Sample ID: **Monthly Truck Comp April 2020**

Analyte Name	Result	Units	DL	NEFCO LIMIT	Method Reference	Analysis Date	Analyst
Total Metal Analysis							
Calcium Carbonate (Calc)	5.0	%	0.001		SW846 6020A	05/05/2020	LT
Total Aluminum	4000	mg/Kg	100		SW846 6010B	05/01/2020	LT
Total Arsenic	6.9	mg/Kg	0.1	41	SW846 6020A	05/05/2020	LT
Total Cadmium	1.7	mg/Kg	0.05	39	SW846 6020A	05/05/2020	LT
Total Calcium	20000	mg/Kg	5.0		SW846 6020A	05/05/2020	LT
Total Chromium	42	mg/Kg	0.5		SW846 6020A	05/05/2020	LT
Total Cobalt	18	mg/Kg	0.5		SW846 6020A	05/05/2020	LT
Total Copper	190	mg/Kg	1.0	1500	SW846 6020A	05/05/2020	LT
Total Iron	21000	mg/Kg	2.0		SW846 6020A	05/05/2020	LT
Total Lead	38	mg/Kg	1.0	300	SW846 6020A	05/05/2020	LT
Total Magnesium	4900	mg/Kg	3.0		SW846 6020A	05/05/2020	LT
Total Manganese	160	mg/Kg	1.0		SW846 6020A	05/05/2020	LT
Total Mercury	0.18	mg/Kg	0.05	17	SW846 7471A	05/01/2020	LS
Total Molybdenum	5.7	mg/Kg	0.1		SW846 6020A	05/05/2020	LT
Total Nickel	24	mg/Kg	1.0	420	SW846 6020A	05/05/2020	LT
Total Potassium	2700	mg/Kg	2.0		SW846 6020A	05/05/2020	LT
Total Selenium	4.7	mg/Kg	0.2	100	SW846 6020A	05/05/2020	LT
Total Sodium	840	mg/Kg	10		SW846 6020A	05/05/2020	LT
Total Zinc	480	mg/Kg	1.0	2800	SW846 6020A	05/05/2020	LT
Metal Soil (digestion)	Digested				3050	04/30/2020	EV
Mercury (digestion)	Digested				7470/7471	04/30/2020	LS
Inorganic Analysis							
Ammonia as Nitrogen	0.054	%	0.0001		EPA 350.1	05/19/2020	RM
Ammonia as Nitrogen	540	mg/Kg	1.0		EPA 350.1	05/19/2020	RM
Chloride (ASTM Leach)	540	mg/Kg	20		SW846 9056	05/07/2020	RM
Nitrite (ASTM Leach)	Not detected	mg/Kg	1.0		SW846 9056	05/07/2020	RM
Nitrogen (Kjeldahl)	5.8	%	0.0001		EPA 351.2	05/08/2020	RM
Nitrogen (Kjeldahl)	58000	mg/Kg	1.0		EPA 351.2	05/08/2020	RM
pH (Soil and Waste)	6.7	S.I.			SW846 9045C	05/01/2020	LS
Phosphate	3.5	%	0.00024		EPA 365.3	05/07/2020	MB
Phosphate P205	5.2	%	0.00024		EPA 365.3	05/07/2020	MB
Phosphate P205	52000	mg/Kg	2.4		EPA 365.3	05/07/2020	MB
Phosphate ppm	35000	mg/Kg	2.4		EPA 365.3	05/07/2020	MB
Phosphorus P205 (total)	27000	mg/Kg	0.2		EPA 365.3	05/07/2020	MB



Brighton Analytical LLC
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e-mail: bai-brighton@sbcglobal.net
EGLE Certified #9404
NELAC Accredited #176507

Sample Date/Time: 4/28/2020 12
Submit Date/Time: 4/29/2020 12
Report Date: 5/20/2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

BA Project # **64755**
BA Sample ID **CM04648**

Project Name: **Monthly Truck Composite April 2020**
Project Number: **Monthly Truck Comp 4/20**
Sample ID: **Monthly Truck Comp April 2020**

Analyte Name	Result	Units	DL	NEFCO LIMIT	Method Reference	Analysis Date	Analyst
Inorganic Analysis							
Phosphorus P205 (total)	2.7	%	0.00002		EPA 365.3	05/07/2020	MB
Phosphorus (total)	1.2	%	0.00002		EPA 365.3	05/07/2020	MB
Phosphorus (total)	12000	mg/Kg	0.2		EPA 365.3	05/07/2020	MB
Sulfur	6200	mg/Kg	50		5050/9056	05/07/2020	MB
Total Organic Nitrogen	5.8	%	0.0001			05/19/2020	RM
Total Organic Nitrogen	58000	mg/Kg	1.0			05/19/2020	RM
Total Solids	960000000	ug/Kg	10000		EPA 160.3	04/30/2020	LS
Total Volatile Solids	70	%	0.001		SM2540G	04/30/2020	LS
Parr Bomb Prep	Prepped				ASTM D5050	05/07/2020	MB
PCB Analysis							
ARO 1260	540	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1262	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1254	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1248	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1242	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1232	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1221	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1016	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
ARO 1268	Not detected	ug/Kg	330		SW846 8082A	05/01/2020	BY
Total PCB	540	ug/Kg	330		SW846 8082A	05/01/2020	BY
PCB soil extraction	Extracted				3510C/3545	04/29/2020	MB
%Solid	96	%			ASTM D2216	04/30/2020	LS

RL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

Elevated metals dl due to sample matrix.

Released by

Date

5/20/2020

BA

Brighton Analytical, L.L.C.TM
 email: bai-brighton@sbcglobal.net
 2105 Pless Drive Phone: 810-229-7575
 Brighton, MI 48114 FAX: 810-229-8650

PROJECT NAME: Monthly Truck Composite April 2020
 PROJECT #: Monthly Truck Composite April 2020
 PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)

BA PROJECT #:
 64285

ABBREVIATIONS
 FOR MATRIX
 S = Solid
 L = Liquid
 DW = Drinking H₂O
 O = Oil
 P = Wipes
 A = Air (Tedlar Bag)
 F = Filter
 T = Tube M = Misc.

Analysis Requested/Method

COMPANY/MAILING ADDRESS:
 9125 W. Jefferson
 Detroit, MI 48033
 ATTN: Sherika Washington
 PHONE: 313 551-5278
 FAX OR EMAIL: swashington@nefcobiosolids.com

Sample Collected By: SW		Container/Quantity	
Brighton ID #	Sample Description	IF RUSH, approved by:	
		Sample Coll.	Time
1) 4448	Monthly Truck Composite April 2020	4/1-4/28/20	
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			

Analysis Requested/Method

Sample Matrix
 See Sheet
 S X
 BILLING ADDRESS (IF REQUIRED):
 no meat

Special Instructions:

Drinking H₂O: FAX TO LCHD yes no
 Chlorinated Water Supply? yes no
 MCL failure: yes no
 Client notified (date/time/initials):

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	A. D. Vegeter	Jane Day	4/28/20	9:00	3				
2	D. T. J.		4-29-20	11:10	4				

The following are for sample 1

Solids, Total (TS) [n]	SM 2540 B
Solids, Volatile	EPA 160.4
pH (Hydrogen Ion)	SM 4500-H+ B
Total Kjeldahl Nitrogen, as N (TKN)	SM4500-Norg B
Ammonia Nitrogen, as N (NH3-N)	SM 4500-NH3 B+G
Nitrite Nitrogen, as N (NO2-N)	EPA 300.0
Organic Nitrogen	Calculation
Phosphorous, Total	EPA 365.3
Total Phosphorous as P205	EPA 365.3
Avail Phosphate as P205	EPA 365.3
Potassium, Total for Water and Waster Water by ICP-MS	EPA 200.8
Chloride	EPA 300.0
Total Sulfur	EPA 9056A
Hardness, Total as CaCO3	SM 2340 C
Calcium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Iron, Total for Water and Waste Water by ICP- MS	EPA 200.8
Aluminum, Total for Water and Waste Water by ICP-MS	EPA 200.8
Arsenic, Total for Water and Waste Water by ICP-MS	EPA 200.8
Cadium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Chromium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Cobalt, Total for Water and Waste Water by ICP- MS	EPA 200.8
Copper, Total for Water and Waste Water by ICP-MS	EPA 200.8
Lead, Total for Water and Waste Water by ICP- MS	EPA 200.8
Magnesium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Manganese, Total for Water and Waste Water by ICP-MS	EPA 200.8
Mercury, Total	EPA 245.1
Molybdenum, Total for Water and Waste Water by ICP-MS	EPA 200.8
Nickel, Total for Water and Waste Water by ICP- MS	EPA 200.8
Selenium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Sodium, Total for Water and Waste Water by ICP-MS	EPA 200.8
Zinc, Total for Water and Waste Water by ICP- MS	EPA 200.8
Polychlorinated Biphenyls, as Arochlors (PCBs)	EPA 608

The following are for Sample 2

Coliform, Fecal	SM 9221 E
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BRIGHTON ANALYTICAL, LLC

QUALITY ASSURANCE/QUALITY
CONTROL

Representative Batch Precision And Accuracy Quality Control Summary

Ion Chromatograph EPA Method 300.0

Date: 5/7/20

Reviewed by: _____

Analyst: RM

ERA P282

ERA #: WP 294

Exp. Date: Oct-22

Analyte	Sample Conc	LCS Value	LCS Conc.	% Rec. LCS	ERA Conc.	ERA TRUE Value	%Rec ERA	Control limits	Units
Fluoride	<100	5,000	4,998	100	1,240	1,210	102	90-110%	ug/L
Chloride	<1000	50,000	49,961	100	54,217	55,600	98	90-110%	ug/L
Nitrite	<10	1,000	985	98				90-110%	ug/L
Nitrate	<10	1,000	993	99	6,376	6,240	102	90-110%	ug/L
Sulfate	<1000	50,000	49,646	99	13,630	14,200	96	90-110%	ug/L

Sample ID# 4990

Analyte	Sample Conc	Spike Value	MS Conc.	MSD Conc.	% Rec MS	% Rec MSD	RPD	Control limits	Units
Fluoride	926	5,000	5,782	5,705	97	96	1.3	80-120%	ug/L
Chloride	6,207	50,000	54,914	54,372	97	96	1.0	80-120%	ug/L
Nitrite	0	1,000	967	954	97	95	1.3	80-120%	ug/L
Nitrate	0	1,000	959	948	96	95	1.2	80-120%	ug/L
Sulfate	6,092	50,000	54,207	53,634	96	95	1.1	80-120%	ug/L

Sample ID# _____

Analyte	Sample Conc	Spike Value	MS Conc.	MSD Conc.	% Rec MS	% Rec MSD	RPD	Control limits	Units
Fluoride		5,000						80-120%	ug/L
Chloride		50,000						80-120%	ug/L
Nitrite		1,000						80-120%	ug/L
Nitrate		1,000						80-120%	ug/L
Sulfate		50,000						80-120%	ug/L

Sample ID# _____

Analyte	Sample Conc	Spike Value	MS Conc.	MSD Conc.	% Rec MS	% Rec MSD	RPD	Control limits	Units
Fluoride		5,000						80-120%	ug/L
Chloride		50,000						80-120%	ug/L
Nitrite		1,000						80-120%	ug/L
Nitrate		1,000						80-120%	ug/L
Sulfate		50,000						80-120%	ug/L

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: RM

Parameter: TKN

Analysis Date: 5/8/20

Method Reference: 351.2

SPIKE - ACCURACY

Laboratory Identification	Spike Conc. (µg/L)	Background (µg/L)	Percent Recoveries	Acceptable Range (%)	Method Blank Concentration
4633 MS/MSD	1000	6,321	93 / 127	90 - 110%	<100

SPIKE - PRECISION

Laboratory Identification	Observed A (µg/L)	Observed B (µg/L)	RPD	Acceptable Range	
4633 MS/MSD	7255	7590	4.51	≤ 20%	

	Standard ID #	%Recovery	
Independent Secondary Reference Material:	WP 294	99%	
Method Standard (Laboratory Control Spike):			

COMMENTS: _____

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: RM

Parameter: Ammonia Soils

Analysis Date: 5/19/20

Method Reference: 350.1

SPIKE - ACCURACY

Laboratory Identification	Spike Conc. (µg/L)	Background (µg/L)	Percent Recoveries	Acceptable Range (%)	Method Blank Concentration
4648 MS/MSD	500	1,303	110 / 130	80 - 120	<1000 ug/kg

SPIKE - PRECISION

Laboratory Identification	Observed A (µg/L)	Observed B (µg/L)	RPD	Acceptable Range	
4648 MS/MSD	1855	1951	5.0	≤ 20%	

MISCELLANEOUS

	Standard ID #	%Recovery	
Independent Secondary Reference Material:	WP 270	98%	

COMMENTS: _____

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: MB

Parameter: PHOS

Analysis Date: 5/7/2020

Method Reference: 365.2

SPIKE - ACCURACY

Laboratory Identification	Spike Conc. (µg/L)	Background (µg/L)	Percent Recoveries	Acceptable Range (%)	Method Blank Concentration
WP 294	6810	<200	100/101	90-110	<200

SPIKE - PRECISION

Laboratory Identification	Observed A (µg/L)	Observed B (µg/L)	RPD	Acceptable Range	
WP 294	6770	6900	1.90	≤ 20%	

MISCELLANEOUS

	Standard ID #	%Recovery	
Independent Secondary Reference Material:	WP 294	100%	
Method Standard (Laboratory Control Spike):			

COMMENTS: _____

ICP-MS METHOD 6020

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 05/05/2020

Standard ID: 021020 S

Batch: 4/30/2020 S1

Matrix Spike Lab ID: CM04646

Matrix: Soil

Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug/Kg)	Matrix Spike Dup (ug/Kg)	RPD (%)	Spk Conc (ug/Kg)	MS Recovery (%)	MSD Recovery (%)	Sample Conc (ug/Kg)	Method Blk (ug/Kg)	LCS-Method STD (%)	Ind. Std SPEX 1&3 (%)
Beryllium	115610	117508	1.6	100000	115.5	117.4	157	<100	95.1	91.5
Sodium	1102305	1089027	1.2	1000000	102.6	101.2	76731	<10000	104.8	92.2
Magnesium	12277972	10974038	11.2	1000000	48.0	0.0	11798400	<1000	97.5	93.7
Potassium	1247452	1279293	2.5	1000000	100.7	103.9	240125	<2000	99.7	95.5
Calcium	36046932	30006482	18.3	1000000	588.5	0.0	30162081	<5000	99.0	90.5
Chromium	108109	107916	0.2	100000	103.3	103.1	4825	<500	96.9	95.9
Manganese	301332	299815	0.5	100000	145.6	144.1	155738	<1000	97.0	93.7
Iron	8038883	7620888	5.3	1000000	161.4	119.6	6425316	<2000	97.0	94.3
Cobalt	105533	104023	1.4	100000	102.9	101.4	2630	<500	98.7	98.3
Nickel	105746	105212	0.5	100000	100.1	99.5	5667	<1000	97.9	96.1
Copper	107279	107190	0.1	100000	100.1	100.0	7184	<1000	98.8	100.0
Zinc	117756	114709	2.6	100000	97.5	94.4	20275	<1000	92.9	90.0
Arsenic	95831	94743	1.1	100000	90.0	88.9	5853	<100	95.7	94.0
Selenium	88023	86761	1.4	100000	88.0	86.7	66	<200	95.0	94.1
Molybdneum	97459	98572	1.1	100000	97.0	98.1	479	<100	97.9	96.8
Cadmium	111403	114387	2.6	100000	111.3	114.3	82	<50	94.9	94.6
Barium	131487	136173	3.5	100002	117.2	121.9	14261	<1000	94.8	94.6
Lead	123107	123356	0.2	100000	116.2	116.5	6902	<1000	92.4	95.9

* Matrix spike precision range +/- 20% RPD

** Matrix spike accuracy range +/- 30% recovery

*** LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments: Mg, Ca, Mn, and Fe out of range due to sample matrix.

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: BY

Parameter: PCB

Analysis Date: 5/1/2020

Method Reference: EPA 8082A

Matrix: Soil

Batch: 04/29/20MBRG

SPIKE - ACCURACY					
Laboratory ID	Spike Conc. (µg/mL)	Background (µg/mL)	% Recovery	Acceptable Range (%)	Method Blank Concentration
CM04620					
DCB (Surrogate)	0.50	ND	104 / 108	50 - 130	115%
Aroclor 1260	1.0	ND	79 / 85	50 - 130	<330 µg/Kg
SPIKE - PRECISION					
Laboratory ID	Observed A (µg/mL)	Observed B (µg/mL)	RPD	Acceptable Range	LCS % Recovery
CM04620					
DCB (Surrogate)	0.52	0.54	3.6	≤ 20%	98%
Aroclor 1260	0.79	0.85	6.8	≤ 20%	74%
MISCELLANEOUS					
	Standard ID #				
DCB (Surrogate)	#2939.4				
Aroclor 1260	#4105				

COMMENTS: _____

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: LS

Parameter: pH

Analysis Date: 5/1/2020

Method Reference: SM4500H+B/9040/9045

BATCH 2

SPIKE - ACCURACY

Laboratory ID	True Value	Observed (°F)	DIFFERENCE	Acceptable Range	
VWR 6.00	6.00	6.00	0	0.05	
Laboratory ID	Observed A	Observed B	DIFFERENCE	Acceptable Range	
CM04711	7.55	7.53	0.02	0.05	

COMMENTS: _____

ICP-OES

METHOD 6010

REPRESENTATIVE BATCH PRECISION AND ACCURACY QUALITY CONTROL SUMMARY

Analysis Date: 05/01/2020

Standard ID: 040220 H2O

Batch: 4/30/2020 T1

Matrix Spike Lab ID: M. STD 1&2

Matrix: TCLP/Soil

Analyst: LT

Metals	Matrix Spike - Precision *			Matrix Spike - Accuracy**				Miscellaneous***		
	Matrix Spike (ug/L)	Matrix Spike Dup (ug/L)	RPD (%)	Spk Conc (ug/L)	MS Recovery (%)	MSD Recovery (%)	Blank Conc (ug/L)	Method Blk (ug/L)	LCS-Method STD (%)	Ind. Std SPEX 1&3 (%)
Aluminum	876	878	0.2	1000	87.6	87.8	0	<100	87.6	90.1
Cadmium	987	989	0.2	1000	98.7	98.9	0	<40	98.7	98.7
Chromium	1016	1016	0.0	1000	101.6	101.6	0	<10	101.6	100.2
Lead	1034	1038	0.4	1000	103.4	103.8	0	<100	103.4	101.8

* Matrix spike precision range +/- 20% RPD

** Matrix spike accuracy range +/- 30% recovery

*** LCS accuracy range +/- 15% recovery / Ind std accuracy range +/- 10% recovery

Comments: _____

REPRESENTATIVE BATCH QUALITY CONTROL

Accuracy & Precision

Analyst: LS

Parameter: Mercury

Analysis Date: 05/01/20

Method Reference: 245.1/7470/7471

Matrix: Soil

Batch: S1

SPIKE - ACCURACY					
Laboratory ID	Spike Concentration (ug/Kg)	Background (ug/Kg)	Recoveries (%)	Acceptable Range (%)	Method Blank Concentration (ug/Kg)
M.STD 1 &2	100	0.0	100 / 100	70 - 130	<50
SPIKE - ACCURACY					
Laboratory ID	Observed A (ug/Kg)	Observed B (ug/Kg)	RPD (%)	Acceptable Range (%)	
M.STD 1 &2	100	100	0.0	0 - 20	
SPIKE - ACCURACY					
	Standard ID #		Recovery (%)	Acceptable Range (%)	
Independent Secondary Reference Material:	SPEX 050120		93	90 - 110	
Method Standard (Laboratory Control Spike)	Hg 050120		100	80 - 120	

COMMENTS: _____

April 30, 2020

NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

Subject: Monthly Fecal Grab April 2020
Monthly Fecal Grab 4/20

Dear Ms. Washington :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Attached are the results for the samples submitted on 04/29/2020 for the above mentioned project. NELAP/TNI Accredited Analysis and EGLE Drinking Water Certified Analysis will be identified in their respective reporting formats. Hard copies can be supplied at your request for a fee of \$20.00 per copy.

The invoice for this project will be emailed separately. If you have any questions concerning the data or invoice, please don't hesitate to contact our office. We welcome your comments and suggestions to improve our quality systems. Please reference Brighton Analytical, L.L.C. Project ID 64757 when calling or emailing. We thank you for this opportunity to partner with you on this project and hope to work with you again in the future.

Sincerely,
Brighton Analytical, L.L.C.



Brighton Analytical LLC
2105 Pless Drive
Brighton, Michigan 48114
Phone: (810)229-7575 (810)229-8650
e-mail: bai-brighton@sbcglobal.net
EGLE Certified #9404
NELAC Accredited #176507

Sample Date: 04/29/2020
Submit Date: 04/29/2020
Report Date: 04/30/2020

To: NEFCO - Detroit
9125 W. Jefferson
Detroit, MI 48209

BA Report Number: **64757** Project Name: **Monthly Fecal Grab April 2020**
BA Sample ID: **CM04650** Project Number: **Monthly Fecal Grab 4/20**
Sample ID: **Monthly Fecal Grab April 2020**

Parameters	Result	Units	DL	Method Reference	Analyst	Analysis Date
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Microbiological Analysis

Fecal coliform	0	MPN/Gm	1	SM9222 MOD	WT	04/29/2020
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DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve EGLE designated target detection limits (TDL).

Released by

Date

4/30/2020



Brighton Analytical, L.L.C.TM
email: bai-brighton@sbcglobal.net

2105 Pless Drive
Brighton, MI 48114

Phone: 810-229-7575
FAX: 810-229-8650

PROJECT NAME: Monthly Fecal Grab April 2020

PROJECT #: Monthly Fecal Grab April 2020

PO #: (PLEASE NOTE IF DIFFERENT BILLING ADDRESS)

Sample Collected By: SW

REQUESTED TURNAROUND: (circle one)

Rush: 1 - 3 business days (verify with lab & specify date needed)

1 Day = 2.5X Cost 2 Day = 2X Cost 3 Day = 1.5X Cost

Standard: 5 business days

Brighton ID #

Sample Description

Monthly Fecal Grab April 2020

If RUSH, approved by:

Sample Coll.

Date

Time

4/24/20

7:30

VOA'S (PRES) Y N NA

HDPE UNPRESERVED

HDPE HNO₃

HDPE H₂SO₄

HDPE NaOH

AMBER Preserved?

GLASS, NO PRESERVATIVE

STERILIZED BACTERIA

MEOH Preserved Y N

Container/Quantity

Sample Matrix

Fecal

S

X

BILLING ADDRESS (IF REQUIRED):

NO MESH

Drinking H₂O: FAX TO LCHD

yes no

Chlorinated Water Supply? AMT:

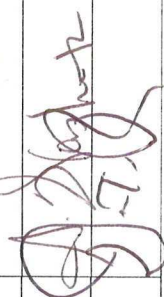
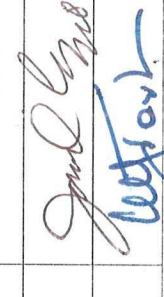
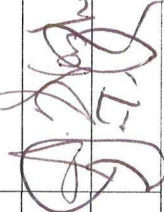
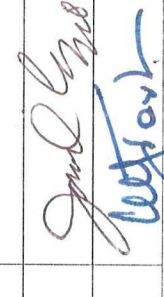
yes no

MCL failure: yes no

Client notified (date/time/initials):

Special Instructions:

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1			4/24/20	9:00 AM	3				
2			4-25-20	11:00	4				

6/29/2020

Nefco-Detroit
Sherika Washington
Ref: Analytical Testing
Report Number: 20-171-0001
Project Description: NEFCO

Dear Sherika Washington:
Waypoint Analytical Virginia, Inc. received sample(s) on 6/19/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Sub-contracted testing is noted on the Sample Summary Table if applicable.

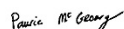
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Pauric McGroary
Agronomist

Sample Summary Table

Report Number: 20-171-0001

Client Project Description: NEFCO

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020		
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	SM-2540G	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	SW-7471B	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	SM-4500-NH3C-TKN	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	4500NO3F-2011	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	6010D	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	SM-4500-NH3C	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	8081A	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	8260B	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	8270D	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	9045D	WP MTN -
72699	NEFCO-composite	Solids	06/16/2020	06/19/2020	SM-2320 B	WP MTN -

12824

Nefco-Detroit
Sherika Washington

Project NEFCO

Information :

Report Date : 06/29/2020
Received : 06/19/2020

Pauric McGroary

Report Number : **20-171-0001**

REPORT OF ANALYSIS

Pauric McGroary
Agronomist

Lab No : **72699**

Matrix: **Solids**

Sample ID : **NEFCO-composite**

Sampled: **6/16/2020 0:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	4.39	%	0.010	1	06/22/20 16:16	FMM	SM-2540G
Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Alkalinity (as CaCO ₃)	3710	mg/Kg - dry	104	1	06/24/20 09:32	CMF	SM-2320 B
Ammonia Nitrogen	454	mg/Kg - dry	26.1	1	06/26/20 15:00	JPJ	SM-4500-NH3C
Nitrate+Nitrite-N	13.0	mg/Kg - dry	5.10	1	06/25/20 14:36	ZBD	4500NO3F-2011
Organic N	41400	mg/Kg - dry	261	1	06/25/20 10:00		CALCULATION
pH	6.0	s.u.		1	06/25/20 06:56	JSL	9045D
Total Solids	95.6	%	0.010	1	06/22/20 16:16	FMM	SM-2540G
Total Volatile Solids	68.6	%	0.010	1	06/22/20 16:16	FMM	SM-2540G
Total Kjeldahl Nitrogen	41800	mg/Kg - dry	261	1	06/25/20 10:00	JPJ	SM-4500-NH3C-TKN
Phosphorus	13100	mg/Kg - dry	26.1	5	06/25/20 18:33	JTR	6010D
Arsenic	8.86	mg/Kg - dry	0.522	1	06/25/20 18:28	JTR	6010D
Cadmium	1.46	mg/Kg - dry	0.105	1	06/24/20 18:10	TJS	6010D
Copper	214	mg/Kg - dry	0.523	1	06/24/20 18:10	TJS	6010D
Lead	42.9	mg/Kg - dry	0.313	1	06/25/20 18:28	JTR	6010D
Mercury	0.269	mg/Kg - dry	0.0155	1	06/24/20 12:14	DDB	SW-7471B
Molybdenum	6.42	mg/Kg - dry	0.261	1	06/24/20 18:10	TJS	6010D
Nickel	31.8	mg/Kg - dry	0.261	1	06/24/20 18:10	TJS	6010D
Potassium	2360	mg/Kg - dry	52.3	5	06/25/20 18:33	JTR	6010D

Qualifiers/ Definitions

DF Dilution Factor
MQL Method Quantitation Limit

L Limit Exceeded

12824

Nefco-Detroit
Sherika Washington

Project NEFCO

Information :

Report Date : 06/29/2020
Received : 06/19/2020

Pauric McGroary

Report Number : **20-171-0001**

REPORT OF ANALYSIS

Pauric McGroary
Agronomist

Lab No : **72699**

Matrix: **Solids**

Sample ID : **NEFCO-composite**

Sampled: **6/16/2020 0:00**

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Selenium	3.31	mg/Kg - dry	0.522	1	06/24/20 18:10	TJS	6010D
Zinc	619	mg/Kg - dry	1.31	1	06/24/20 18:10	TJS	6010D

Analytical Method: 8081A

Prep Batch(es): **L497731** 06/23/20 10:00

Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aldrin	<28.8	µg/Kg - dry	28.8	10	06/26/20 16:06	VIC	L498625
Chlordane	<288	µg/Kg - dry	288	10	06/26/20 16:06	VIC	L498625
4,4'-DDD	<28.8	µg/Kg - dry	28.8	10	06/26/20 16:06	VIC	L498625
4,4'-DDE	<28.8	µg/Kg - dry	28.8	10	06/26/20 16:06	VIC	L498625
4,4'-DDT	<28.8	µg/Kg - dry	28.8	10	06/26/20 16:06	VIC	L498625
Dieldrin	<28.8	µg/Kg - dry	28.8	10	06/26/20 16:06	VIC	L498625
gamma-BHC	<28.8	µg/Kg - dry	28.8	10	06/26/20 16:06	VIC	L498625
Heptachlor	<28.8	µg/Kg - dry	28.8	10	06/26/20 16:06	VIC	L498625
Toxaphene	<2880	µg/Kg - dry	2880	10	06/26/20 16:06	VIC	L498625
Surrogate: Decachlorobiphenyl	75.3		Limits: 37-165%	10	06/26/20 16:06	VIC	L498625
Surrogate: Tetrachloro-m-xylene	46.9		Limits: 18-158%	10	06/26/20 16:06	VIC	L498625

Qualifiers/ Definitions

DF

Dilution Factor

MQL

Method Quantitation Limit

12824

Nefco-Detroit
Sherika Washington

Project NEFCO

Information :

Report Date : 06/29/2020
Received : 06/19/2020

Pauric McGroary

Report Number : **20-171-0001**

REPORT OF ANALYSIS

Pauric McGroary
Agronomist

Lab No : **72699**

Matrix: **Solids**

Sample ID : **NEFCO-composite**

Sampled: **6/16/2020 0:00**

Analytical Method: 8260B **Prep Batch(es):** **L498491** 06/25/20 07:53

Prep Method: 5030A

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Trichloroethene	<6.54	µg/Kg - dry	6.54	1	06/25/20 11:14	RED	L498497
Surrogate: 4-Bromofluorobenzene	112		Limits: 60-130%	1	06/25/20 11:14	RED	L498497
Surrogate: 1,2-Dichloroethane - d4	129		Limits: 60-132%	1	06/25/20 11:14	RED	L498497
Surrogate: Toluene-d8	109		Limits: 70-130%	1	06/25/20 11:14	RED	L498497

Analytical Method: 8270D **Prep Batch(es):** **L497593** 06/22/20 13:30

Prep Method: 3546

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Benzo(a)pyrene	<9520	µg/Kg - dry	9520	10	06/24/20 16:57	MLR	L497968
Hexachlorobenzene	<24300	µg/Kg - dry	24300	10	06/24/20 16:57	MLR	L497968
Hexachlorobutadiene	<24300	µg/Kg - dry	24300	10	06/24/20 16:57	MLR	L497968
N-Nitrosodiethylamine	<24300	µg/Kg - dry	24300	10	06/24/20 16:57	MLR	L497968
Surrogate: 2-Fluorobiphenyl	60.0		Limits: 20-120%	10	06/24/20 16:57	MLR	L497968
Surrogate: Nitrobenzene-d5	57.6		Limits: 22-120%	10	06/24/20 16:57	MLR	L497968
Surrogate: 4-Terphenyl-d14	60.9		Limits: 22-120%	10	06/24/20 16:57	MLR	L497968

Qualifiers/ Definitions

DF

Dilution Factor

MQL

Method Quantitation Limit



Client: Nefco-Detroit
Project: NEFCO
Lab Report Number: 20-171-0001
Date: 6/29/2020

CASE NARRATIVE

High Temp/Pressure Extraction for OC Pests Method 3546

Sample 72699 (NEFCO-composite)

QC Batch No: L497731/L497731

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample.
Reporting limits are factored for the sample size reduction.

High Temp/Pressure Extraction for 8270 Method 3546

QC Batch No: L497593/L497593

The weight/volume extracted was reduced during the extraction procedure due to the nature of the sample.
Reporting limits are factored for the sample size reduction.

Shipment Receipt Form

Customer Number: **12824**

Customer Name: **Nefco-Detroit**

Report Number: **20-171-0001**

Shipping Method

☐ Fed Ex ☐ US Postal ☐ Lab ☐ Other :
☒ UPS ☐ Client ☐ Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



WASTEWATER SAMPLE TRAN

7621 Whitepine Road Richmond VA 23237 Tel: 804-743-940

Waypoint

Customer Inf

Submitted By

Shrika Washington

NECCO - Detroit (credit card)



20-171-0001
12824
06-19-2020
11:45:54
NEFCO

DY

Account #

Project: Phone: 313 551 5278 Fax: 313.406.3981 E-mail: subashington@nefcodetroit.com

Sample Information

Sample ID	Lab Number (Lab Use Only)	Collection Information			Container Information			Please Write in Desired Tests									
		Type	Date	Time	Number of Bottles	Type	Volume										
NECCO	721091	Grab Composite	6/11-6/16/20		4	Glass Plastic	32 oz pint qt	NO	NO	Rest.	Cont. attached						
		Grab Composite				Glass Plastic	oz pint qt										
		Grab Composite				Glass Plastic	oz pint qt										
		Grab Composite				Glass Plastic	oz pint qt										
		Grab Composite				Glass Plastic	oz pint qt										

Relinquished By: (Signature) Date Time Received By: (Signature) Date Time

A. Noddy 6/17/20 13:00 6/19/20

Test Available

Nitrogen Series: Total Kjeldahl, Ammonium, Nitrate & Organic Nitrogen, Phosphorus (total, ortho), Potassium, Sulfate-Sulfur, Calcium, Magnesium, Sodium, Iron, Aluminum, Manganese, Copper, Zinc, Arsenic, Barium, Cadmium, Chromium, Cobalt, Molybdenum, Mercury, Lead, Selenium, Silver, Nickel, Acidity (Total), Alkalinity (Total), Biochemical Oxygen Demand (5 days), Boron, Chemical Oxygen Demand, Chloride, Conductance (Specific), Hexavalent Chromium, Oil and Grease (EPA), pH, Phenol, Solids (Dissolved, Suspended, Total, Volatile)

Special Instructions or Remarks

Contact me for payment. I will provide credit card number over the telephone. Thank you.
Temp below 60°F

Parameter	Units
Percent Solids ✓	%
Volatile Solids ✓	%
pH ✓	SU
Alkalinity as CaCO ₃ ⁽³⁾ ✓	mg/kg
Nitrogen, (Nitrate) ✓	mg/kg
Nitrogen, (Ammonium) ✓	mg/kg
Nitrogen, (Total Kjeldahl) ✓	mg/kg
Phosphorus, (Total) ✓	mg/kg
Potassium, (Total) ✓	mg/kg
Arsenic ✓	mg/kg
Cadmium ✓	mg/kg
Copper ✓	mg/kg
Lead ✓	mg/kg
Mercury ✓	mg/kg
Molybdenum ✓	mg/kg
Nickel ✓	mg/kg
Selenium ✓	mg/kg
Zinc ✓	mg/kg

And

Parameter	Biosolids Concentrations ⁽¹⁾
Aldrin/dieldrin (total)	<u>91311</u> mg/kg
Benzo (a) pyrene	<u>91251</u> mg/kg
Chlordane	<u>91311</u> mg/kg
DDT/DDE/DDD (total) ⁽²⁾	<u>91311</u> mg/kg
Dimethyl nitrosamine	<u>91251</u> mg/kg

20-171-0001
12824
06-19-2020
11:45:54
NEFCO
Netco-Detroit

Heptachlor	<u>91311</u>	mg/kg
Hexachlorobenzene	<u>91251</u>	mg/kg
Hexachlorobutadiene	<u>91251</u>	mg/kg
Lindane	<u>91311</u>	mg/kg
Toxaphene	<u>91311</u>	mg/kg
Trichloroethylene	<u>51111</u>	mg/kg

20-171-0001
 12824
 06-19-2020
 11:45:54
 Netco-Detroit
 NEFCO